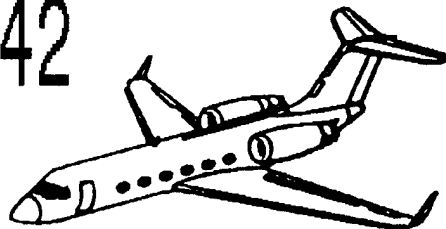


# U. S. AIR FORCE COMMERCIAL AIRCRAFT ACQUISITIONS

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November 20, 1995

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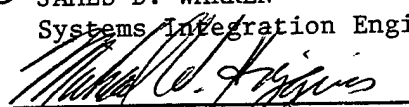
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# INTRODUCTION

The Aeronautical Systems Center (ASC) has been involved in the procurement of 19 different types of Federal Aviation Administration (FAA) certified commercial aircraft since 1978 (638 aircraft) with a contract value over \$6 billion. In anticipation of increased emphasis on the use of commercial aircraft to meet future Air Force mission needs, the Aircraft System Program Office (ASC/SD) formed the Commercial Aircraft Acquisition Critical Process Team (CPT) in May 1992. This CPT documented the Air Force commercial aircraft acquisition process and recommended changes to improve the process. Over 325 copies of the CPT's report have been distributed since its completion in June 1993. The report was sent to the Deputy Undersecretary of Defense for Acquisition Reform (DUSD(AR)) in January 1994 for its use in DoD acquisition reform.

The CPT's study effort has led to the development of additional streamlining initiatives by the Commercial Aircraft Integrated Product Team (IPT), which is led by an individual who has been involved in all 19 commercial aircraft acquisition

programs. The Commercial Aircraft IPT developed the improved Request for Proposal (RFP) process for commercial aircraft acquisitions reflected in this report; developed the Draft Memorandum of Agreement (MOA) between FAA and DoD on the certification of civil derivative aircraft; provided major contributions to the author of Air Force Policy Directive (AFPD) 62-4, "Civil Airworthiness Standards for Transport Aircraft"; developed a matrix to track implementation of the CPT recommendations; and provided key input to the Commercial Derivative Aircraft (CDA) Pilot Program and the Federal Acquisition Streamlining Act of 1994.

This report updates the commercial aircraft acquisition process that was documented for the first time by the Commercial Aircraft Acquisition CPT. This update is based on implementation of the CPT's recommendations, the Federal Acquisition Streamlining Act of 1994, and acquisition streamlining initiatives developed on the C-20H, Nondevelopmental Airlift Aircraft, and C-32A programs.

# ACQUISITION REFORM

## COMMERCIAL AIRCRAFT ACQUISITION CRITICAL PROCESS TEAM

The Commercial Aircraft Acquisition CPT consisted of 32 government and industry members with the mission to "Develop an integrated acquisition process to optimize the use of commercial practices to acquire and support FAA certified aircraft to satisfy users' needs." This CPT involved six government organizations, including the FAA and the Office of the Assistant Secretary of Defense for Production and Logistics (OASD(P&L)), as well as seven aircraft corporations that do a large portion of their business in the commercial sector.

The CPT considered the whole acquisition process from the development of the mission needs statement to acquisition contract close-out, including the preparation for the support phase and system retirement. The team used brainstorming, nominal group technique and flow charts as tools for defining the ASC commercial aircraft acquisition process and a generic process for industry acquisition of a similarly configured commercial aircraft. It compared the ASC commercial aircraft acquisition process with the generic industry commercial aircraft acquisition process while evaluating each of the 95 defined steps in the ASC process for value-added and cost impact according to criteria established by the CPT. The team also evaluated the ASC process for other impediments to commercial aircraft acquisitions.

The CPT defined 23 general and 39 specific step recommendations for improving the ASC commercial aircraft acquisition process. Implementation of the commercial practices learned by this study on the C-20H contract (where allowed) resulted in a 40% cost savings and a 50% delivery schedule reduction for the second aircraft. Most of the CPT recommendations are being implemented on the C-33A (NDAA), C-130J, C-32A (VC-X) and National Guard Bureau C-21 Replacement programs with anticipated savings of 15-25% in procurement cost and a 50% reduction in program office effort for each program. The

implementation status of the CPT recommendations are shown in Appendices B and C. This matrix will continue to be updated as changes occur in the status of the recommendations.

## USE OF MILITARY SPECIFICATIONS AND STANDARDS

On 29 Jun 94 Dr. Perry, Secretary of Defense, signed a memorandum that established a new policy on the use of specifications and standards by the DoD. The purpose of this policy change was to increase access to commercial state-of-the-art technology, facilitate adoption of world-class commercial business practices, facilitate dual-use processes and products, contribute to an expanded industrial base, and reduce the cost of meeting defense needs. This is to be accomplished through increased use of performance and commercial specifications and standards.

This policy change requires the use of performance specifications when purchasing new systems, major modifications, upgrades to current systems, and nondevelopmental and commercial items. This memorandum further states that the specifications and standards listed in DoDI 5000.2 are for guidance only. A design solution may only be defined through the use of a military specification if the use of a performance specification or non-government standard is not cost effective.

Military specifications and standards are authorized for use only if proposed by a contractor or a waiver has been granted by the Milestone Decision Authority (MDA). Once a waiver has been granted, only the specifications and standards cited explicitly in the contract or engineering drawings are mandatory. Lower tier references are for guidance only. The RFP and contract must also contain language to encourage the contractor to propose non-government standards and industry practices that meet the intent of the cited military specifications and standards.

The following additional pertinent direction is contained in this policy memorandum:

1. Program management and manufacturing specifications and standards are for guidance only.
2. The contractors should maintain configuration control of the detail design, and the Government should maintain configuration control of the functional and performance requirements only.
3. Use process controls and non-government standards in place of developmental and/or production testing and inspection and military unique quality assurance requirements.
4. Challenge solution oriented requirements during the requirements determination phase.
5. Reduce or eliminate toxic pollutants procured or generated through the use of specifications and standards.
6. The MDA must ensure that progress is being made in the streamlining of contracts and the oversight process.

## FEDERAL ACQUISITION STREAMLINING ACT OF 1994

The Federal Acquisition Streamlining Act (FASA) of 1994 repeals or modifies over 225 statutory rules and encourages the use of several innovative procurement techniques. FASA used the recommendations of the 800 Panel, National Performance Review, and DoD proposals as source data to provide a more common-sense, commercialized procurement approach. This approach includes a required focus on performance-based management concepts for major acquisitions and advocates the use of performance specifications in RFPs, explaining what the product must do rather than how to design it. FASA also encourages the commercial practice of considering past performance in evaluating whether a company should be awarded a contract.

FASA enacted the following commercial acquisition related provisions:

1. It expands the commercial item definition to include items developed for commercial use but not yet in use.
2. It defines a nondevelopmental item (NDI) as:
  - a. A commercial item.

- b. A previously developed item that is in use by the Federal or a State or local government or a foreign government that the United States has a defense agreement with.

- c. Any item that requires only minor modifications or modifications normally accomplished in the commercial market.

- d. A production item that is not yet in use.

3. It reemphasizes the preference that should be given to the use of NDI in all acquisitions.

4. It creates a minimal subset of commercial item acquisition contract clauses that implement the provisions of law that are applicable to commercial items, that are essential for the protection of the Government, and that are consistent with the use of commercial practices.

5. It implements most of the significant 800 Panel recommendations that relate to the acquisition of commercial items, including relief from certified cost and pricing data requirements when competition or adequate commercial price information exists.

6. It establishes the requirement for an advocate for the acquisition of commercial and NDI within the Office of Federal Procurement Policy.

## ACQUISITION "LIGHTNING BOLTS"

The Office of the Assistant Secretary of the Air Force (Acquisition) (SAF/AQ) has launched the following nine "Air Force Acquisition Lightning Bolt Initiatives".

1. Establish a centralized RFP support team to scrub all RFPs, contract options, and contract modifications over \$10 million for a period of two years. This responsibility and expertise will then transfer to the product and logistic centers. This integrated product team will ensure that RFPs:

- a. Eliminate military specifications and standards.

- b. Contain a performance oriented specification.

- c. Substitute a one to two page statement of objectives for the traditional statement of work.
  - d. Eliminate non-value added material and minimize Contract Data Requirements Lists.
  - e. Contain simplified, streamlined proposal preparation instructions that focus on critical criteria and eliminate "nice to have" information.
  - f. Are provided electronically.
2. Create a standing Acquisition Strategy Panel (ASP). This ASP would be composed of senior level acquisition personnel from SAF/AQ, AFMC, and the users that would:
    - a. Create a tiered IPT arrangement based on the acquisition category.
    - b. Apply lessons learned from past Air Force programs.
    - c. Promote consistency in acquisition strategy, tailored to the specifics of the program.
    - d. Utilize the above RFP support team as the coordination/staff function.
  3. Develop a new System Program Office (SPO) manpower model that is based on acquisition strategies that use the prime contractor as the system integrator. This initiative is expected to achieve a 50% reduction in SPO size by requiring the SPO to: examine what it is doing, prioritize tasks, and eliminate the lowest priority and non-value added tasks.
  4. Eliminate all center-level acquisition policies. The only agencies that will be allowed to issue acquisition policies, instructions, or guidelines are the Secretariat, Air Staff, and HQ AFMC.
  5. Reinstitute the Air Force Systems Acquisition Review Council (AFSARC) as a paperless process. The AFSARC is an IPT with membership from the Secretariat, Air Staff, and HQ AFMC and led by SAF/AQ. It will convene only if there is a disagreement among the milestone review participants on how to resolve a problem.
  6. Enhance the role of past performance in source selections by making it co-equal with technical, management, and cost in the proposal evaluations. This is necessary because of the

change from SPO oversight to only SPO insight of a contractor's performance.

7. Use a Single Acquisition Management Plan (SAMP) to replace the multiple acquisition documents (e.g. acquisition plan, program management plan, acquisition strategy reports, etc.) required for milestone reviews.
8. Add an acquisition reform section to Program Executive Office (PEO) and Designated Acquisition Commander (DAC) portfolio reviews. Program managers will develop metrics to track implementation of acquisition initiatives.
9. Enhance our acquisition work force with a comprehensive program that integrates acquisition reform education and training initiatives. This training program will assure individuals have the knowledge, skills, abilities, and experience and understanding of how to use the tools necessary to perform job tasks and to maintain core competencies after assignment.

## FEDERAL ACQUISITION REGULATION FOR COMMERCIAL ITEMS

Implementation of FASA has affected a large number of the Federal Acquisition Regulations (FARs). The most significant impacts on the acquisition of commercial items are from the new FAR Part 10, "Market Research", and FAR Part 12, "Acquisition of Commercial Items".

FAR Part 10 "prescribes policies and procedures for conducting market research to arrive at the most suitable approach to acquiring, distributing, and supporting supplies and services." It requires that market research be conducted prior to developing new requirements documents to determine if commercial or nondevelopmental items are available that meet the requirements or could be modified to meet the requirements. This market research should also be used to determine if reasonable modification of the requirements could be made to allow the use of commercial or nondevelopmental items.

FAR Part 12 "prescribes policies and procedures unique to the acquisition of commercial items." It requires that commercial or nondevelopmental items be acquired when they are available to meet



requirements and, when not available, that commercial or nondevelopmental components be used to the maximum extent possible. FAR Part 12 also states:

1. Requirements for the product or service must be stated in terms of the function to be performed, performance, or essential physical characteristics.
2. Past performance data from both inside and outside the Government should be used as an important part of source selection.
3. Firm fixed price or fixed price with economic price adjustment contracts must be used.
4. Existing commercial quality assurance systems must be used.
5. Allows government financing if market research confirms that buyer financing is the customary market practice for acquisition of the commercial item.
6. Technical data and the rights to that data must only be acquired to the extent that is customarily provided to the public, unless otherwise required by law.
7. Other customary commercial buyer practices not addressed in FAR Part 12 should be considered for contract incorporation if they are not otherwise precluded by law or executive order.
8. Contracts for commercial items must only include those clauses required to implement provisions of law or executive order applicable to commercial item acquisitions or those clauses determined to be consistent with customary commercial practice.

## **PENDING ACQUISITION REFORM BILLS**

### **DOD ACQUISITION MANAGEMENT REFORM ACT**

This bill (H.R. 1368 and S. 646) was written by Senator William Roth, R-Del. and a team of repre-

sentatives led by Representative John Kasich, R-Ohio. It combines all DoD research, development and acquisition agencies into one agency run by the Office of the Secretary of Defense. This bill also requires cancellation of programs that fail to meet performance requirements, and it stops the DoD from reserving 60% of maintenance work for military depots.

### **1996 NATIONAL DEFENSE AUTHORIZATION ACT**

This bill (H.R. 1530 and S. 727) was written by Pentagon officials and introduced by Senator Strom Thurmond, R-S.C. and Representative Floyd Spence, R-S.C. It repeals the recoupment fee added to foreign military sales, ends the military depot 60% set-aside, and permits exemption of pilot programs from acquisition regulations.

### **FEDERAL ACQUISITION IMPROVEMENT ACT**

This bill (H.R. 1388 and S. 669) was written by White House officials and introduced by Senator John Glenn, D-Ohio and Representative William Clinger, R-Pa. It permits contracting officers to limit the number of bidders that can compete and prohibits protests of electronic commerce bulletin board staged competitions. It also requires filers of frivolous bid protests to pay for government costs.

### **FEDERAL ACQUISITION REFORM ACT (FARA)**

This bill (H.R. 1670) was sponsored by Representatives Floyd Spence, R-S.C. and William Clinger, R-Pa. It states that full and open competition should be used to the maximum extent possible, but is not required. FARA also repeals the foreign military sales recoupment fee. Furthermore, it requires the purchase of commercial products and services whenever possible and it relieves accounting practices for commercial acquisitions.

# ACQUISITION PROCESS

The acquisition process is defined in Appendix F (Pre-Award Process) and in Appendix G (Post-Award Process). These processes are described in this section and assume a competitive nondevelopmental, FAA certified aircraft acquisition where the missionized aircraft will be FAA certified. If the program contains a major developmental effort for a portion that will be integrated into a commercial aircraft (e.g. airborne laser), that portion would follow the developmental process defined in DoDI 5000.2 and the Air Force Acquisition Model (AFAM). In this case, the program team needs to determine, based on a cost-benefit analysis, if the developmental subsystem and/or its installation should be FAA certified. References to governing directives/instructions are shown where known.

## PRE-AWARD PROCESS

The pre-award process defined in Appendix F and described in this part is for the requirements definition and Request for Proposal (RFP) phases of a nondevelopmental aircraft acquisition program. Generic pre-award program office schedules for both competitive and sole-source acquisition category (ACAT) III programs are provided as Appendix D and Appendix E, respectively.

## MISSION ANALYSIS

Mission analysis is accomplished by the Air Staff, Major Commands (MAJCOMs) and field operating agencies. The process is designed to enhance Air Force capabilities by initially identifying military objectives in the Defense Planning Guide, the Air Force Plan, and regional operations orders and operations plans. Once the military objectives are identified, an assessment is made of the Air Force's ability to accomplish these objectives. The end result is a list of identified mission needs.

References: DoDI 5000.2, AFD 10-6, AFI 10-601

## DEVELOP MISSION NEEDS STATEMENT (MNS)

Alternative concepts are evaluated to meet mission needs. Non-material solutions (including changes in operational doctrine, concepts, tactics, training,

or organization) are evaluated first. Only when a non-material solution is not available will a material solution be considered. The purpose of the MNS is to identify an operational capability requiring a material solution to perform an assigned mission or correct a deficiency in existing capability to perform the mission. The MNS is prepared by the using command with the involvement of Air Force acquisition and support personnel who have been conducting market surveillance to maintain cognizance of the capabilities of commercial products, commercial business practices and changes in FAA certification requirements.

References: DoDD 5000.1, DoDI 5000.2, AFD 10-6, AFI 10-601, SD-2, SD-5

## MARKET SURVEY

The earliest possible involvement of acquisition personnel is essential in order to assess market availability, FAA applicability, etc. This initial stage is where a market survey is conducted to determine what, if any, off-the-shelf products are available to meet the user's need. Initial contact with potential offerors and the FAA may occur. Market survey results are used to update the MNS, where possible, to match the needs to the capabilities of available commercial products.

References: DoDD 5000.1, AFD 10-6, AFI 10-601, SD-2, SD-5

## PRELIMINARY THREAT ASSESSMENT

The operating command prepares the initial assessment of the threat to be countered and the projected threat environment for inclusion in the MNS.

References: DoDD 5000.1, DoDI 5000.2, DIAR 55-3, AFI 14-208

## MNS

The MNS is updated from the results of the market survey to encourage the use of commercial items. It is coordinated within the MAJCOM and Air Staff before validation.

## **JOINT REQUIREMENTS OVERSIGHT COUNCIL (JROC) APPLICABILITY**

The Air Staff determines the appropriate level of approval and oversight by the JROC. The council usually consists of the Vice Chiefs of the Army, Navy, and Air Force, and the Assistant Commandant of the Marine Corps. It is chaired by the Vice Chairman of the Joint Chiefs of Staff.

References: DoDD 5000.1, DoDI 5000.2, AFD 10-6, AFI 10-601

## **JROC VALIDATION**

The JROC reviews and validates all MNS having the potential to become ACAT I programs or requiring Defense Acquisition Board (DAB) review. The JROC also indicates a joint priority for meeting those needs.

References: DoDD 5000.1, DoDI 5000.2, AFD 10-6, AFI 10-601

## **MILESTONE 0 DECISION**

The decision to proceed with a commercial aircraft acquisition program is based on the market survey and availability of funding. This decision is documented in an Acquisition Decision Memorandum (ADM).

References: DoDD 5000.1, AFD 10-6, AFI 10-601

## **REWORK**

Reaccomplish some or all of the previous steps to alleviate problems identified at the milestone review.

## **PROGRAM MANAGEMENT DIRECTIVE (PMD)**

Subsequent to the Milestone 0 decision, the PMD is formally issued designating the acquisition category and directing execution of the program. Only those acquisition regulations appropriate for commercial programs are included. Upon receipt of the PMD, the System Program Director (SPD) does an executability analysis and the PMD is essentially "accepted" or determined to be non-executable. Typically, the SPD will have made inputs to the PMD for the Program Element Monitor (PEM), so executability issues should have already been worked out. An Air Force Materiel Command (AFMC) letter directive

establishes the Responsible Test Organization (RTO) if not done in the PMD.

References: FAR Part 12

## **INTEGRATED PRODUCT TEAM (IPT) ACTIVATION**

Upon receipt of the PMD, the SPD, or the appropriate Developmental System Manager (DSM), assigns the acquisition program to an existing IPT or establishes a new IPT. The IPT consists of personnel from all appropriate functional organizations. Initial contacts are made with the RTO and the FAA. Initial planning is begun for preparing a program baseline and implementing the PMD. IPT personnel are also trained on the commercial aircraft acquisition process and FAA certification if they have no recent experience with FAA certified commercial aircraft acquisitions.

References: IWSM Guide, IWSM CONOPs for CLS Aircraft

## **DEVELOP OPERATIONAL REQUIREMENTS DOCUMENT (ORD)**

The ORD is prepared by the using command with the involvement of acquisition and support personnel, FAA and industry, as appropriate. It is tailored to match commercial capabilities and best commercial practices, where appropriate. It describes quantitative and qualitative performance, operational capability, and support parameters, characteristics, and requirements. The ORD documents how the system will be operated, deployed, employed, and supported, and provides initial guidance for the implementing, supporting, and participating commands and agencies. The requirements specified in the RFP must be stated in performance/functional terms to allow industry maximum flexibility in proposing design solutions for satisfying the requirements. If the ORD adequately satisfies this criteria, it will be included in the RFP along with a Supplemental Requirements Document (SRD) that provides information to supplement/clarify the requirements and objectives contained in the ORD. The SRD will also identify the relative importance of each objective stated in the ORD/SRD to facilitate a best value source selection.

References: DoDD 5000.1, DoDI 5000.2, AFD 10-6, AFI 10-601, SD-2, SD-5

## DEVELOP SINGLE ACQUISITION MANAGEMENT PLAN

Initial planning begins upon receipt of the PMD and initiates coordination among the team, the FAA and the user. The preliminary ORD, market survey results, and the PMD are used by the IPT to develop the initial acquisition strategy to meet the user's need. The IPT will also prepare a waiver package (if necessary) to obtain relief from any acquisition regulations or policies that are an impediment to the commercial aircraft acquisition and the use of commercial practices. The acquisition strategy will be finalized and documented in the Single Acquisition Management Plan (SAMP). This plan also documents how all aspects of the program (i.e. program management, engineering, logistics support, test, etc.) will be managed and key elements of the program cost, schedule, and performance for tracking progress toward program executability. It serves as the program team's commitment to the Program Executive Officer (PEO) or Designated Acquisition Commander (DAC) and, in turn, to the MAJCOM Commander. Breaches of those parameters require justification to senior level government management. The SAMP is updated as necessary throughout the acquisition cycle. Before providing a copy to industry for their information, the program manager should determine if funding information must be removed from the SAMP prior to its release.

References: AFI 99-101, DoDD 5000.1, DoDI 5000.2, DoD 5000.2M, DoDD 5000.3-M-1, FAR Part 6, SD-2, IASP Guide

## DEVELOP COST AND OPERATIONAL EFFECTIVENESS ANALYSIS (COEA)

The COEA, accomplished by the using command, is a cost-benefit analysis of the various alternatives for meeting the military requirement documented in the MNS. Benefits concentrate on operational effectiveness of the alternatives. The IPT will provide inputs to the COEA.

References: DoDI 5000.2, AFD 10-6, AFI 10-601, AFI 10-603

## PROGRAM SCHEDULING & COST ESTIMATION

Program Office Estimates (POEs) and schedules are developed by the IPT, sometimes for several

alternative acquisition strategies. POEs typically cover all life cycle costs of the system and are used to determine and adjust budget requests. The documented POE and cost model(s) serve as a baseline to perform "what-ifs" on the program. While establishing ground rules and assumptions and the content of POEs, the IPT further defines the program.

## NOTIFY POTENTIAL OFFERORS

Identification of the program and a government point of contact for information is provided to industry by synopsis in the Commerce Business Daily (CBD). This is the initial notification to industry that a new acquisition is being planned and initiates official dialog between industry and the acquisition office. A list of potential sources is prepared from the responses received. As changes occur, additional CBD announcements are released.

## DETERMINE GOVERNMENT FURNISHED EQUIPMENT (GFE) REQUIREMENTS

The IPT reviews the PMD and draft ORD to determine the possible GFE requirements. This includes all military equipment, data, services, facilities and government owned or leased items to be provided. The IPT then checks availability of the equipment and develops the preliminary master GFE list for inclusion in the model contract portion of the RFP. For most commercial aircraft acquisition programs, GFE requirements (if any) aren't implemented until contract award and are based on the offeror's request.

References: AFMCR 800-31

## IPT INPUTS TO REQUIREMENTS DOCUMENTS

This is a continuation of the IPT interface with the user to ensure the ORD and COEA reflect appropriate acquisition criteria and industry capabilities. This includes FAA and military criteria, when appropriate, and ensuring requirements are clearly stated in functional (i.e. performance and capability) terms.

## COEA

The COEA is distributed after all changes identified by the IPT, MAJCOM, Office of the Secretary of Defense (OSD), and Joint Staff review comments are incorporated.

## ICE/CARD

The Independent Cost Estimate (ICE) is accomplished by the Air Force Cost Analysis Agency. ICEs are accomplished for all major defense acquisition programs (ACAT I). The ICE and POE are accomplished using different methodologies and are used as a cross check. Major defense acquisition program POEs and ICEs are reviewed and approved by the Air Force Cost Analysis Improvement Group (CAIG) and, if required, the OSD CAIG.

Cost Analysis Requirements Documents (CARDs) are provided to the OSD CAIG in preparation for a DAB review on ACAT I programs. The CARD documents key characteristics of the program.

The ICE and CARD are not accomplished for most commercial aircraft acquisition programs.

References: DoDI 5000.2, DoDD 5000.4, DoD 5000.2-M

## RFI/MARKET RESEARCH

Requests for information (RFI)/market research identify the system requirements and requests companies provide information on their equipment which may meet these requirements. RFIs also request other information to help the IPT refine the acquisition strategy and POE. The issuance of RFIs should start immediately following the notification to potential offerors.

REFERENCES: FAR Part 10, SD-2, SD-5

## MEETINGS WITH POTENTIAL OFFERORS

After the receipt of responses to the RFIs, the IPT meets with the potential offerors regarding the capability of their equipment and the appropriateness of the Air Force's schedule and requirements.

## REFINE ACQUISITION STRATEGY

As the iterative process between the IPT, the user, the FAA, and industry continues, the IPT makes refinements to the acquisition strategy, conducts Strategic and Tactical Roundtables, as appropriate, and makes final preparations for meeting the Acquisition Strategy Panel (ASP).

References: FAR Part 6, FAR Part 7.1, IASP Guide

## ASP

The ASP is a senior level panel within the Government which reviews and approves the acquisition strategy presented by the program team. The IPT must convince the ASP that candidate aircraft exist that can meet the user's requirements, risks are manageable, and that the program is executable.

References: FAR Part 7.1, AFMCP 800-7, IASP Guide

## SAMP APPROVAL

The SAMP is finalized and sent through coordination channels to the Under Secretary of the Air Force for Acquisition (or as delegated in the ADM) for approval. The approval level is driven by the acquisition planning portion of the SAMP.

References: FAR Part 7.1

## SAMP

The SAMP is put on the RFP Bulletin Board, or provided by other means, for the bidders' information. The plan includes all aspects of the acquisition through initial operation. The SAMP has pertinent data for use in the development of the Integrated Management Plan (IMP) that will be prepared by the offerors for their proposals. The content of the IMP should be tailored according to the complexity and requirements of the program.

References: FAR Part 7.1

## DEVELOP DRAFT RFP

This step begins with training on the RFP process. Responsibility for preparing each section of the RFP is then assigned to members of the IPT. Information used for each section is obtained from the draft ORD, SAMP, PMD, industry data, similar RFPs, lessons learned, informal user interface, other government agencies, regulations, and pol-

icy. The team member preparing each RFP section is responsible for consolidating all of the inputs, verifying the need for each requirement, and identifying all requirements that don't add value and are incompatible with FAA certification and commercial practices. Emphasis will be placed on the missionization of the commercial aircraft.

References: FAR Part 12

### THREAT ASSESSMENT

The primary threat document is the System Threat Assessment Report (STAR) which is prepared by the using command. All STARs are validated by the Defense Intelligence Agency. The STAR may be a stand alone document or may be incorporated into the ORD.

References: DoDD 5000.1, DoDI 5000.2, DoD 5000.2-M, DIAR 55-3, AFI 14-208

### INITIAL RFP DISCUSSIONS

As the rough draft of each section of the RFP is completed, it is placed on the RFP Bulletin Board for informal review and comment by the user, potential offerors and other government offices. The IPT will invite potential contractors to attend face-to-face discussions regarding the planning of the program. The aircraft requirements and the terms and conditions of the contract are usually discussed for their appropriateness to a commercial aircraft acquisition. This market research conference may be held at the user's facility to give the potential contractors a better understanding of the requirements and the existing facilities. Each potential contractor will also be given an opportunity to discuss commercial catalog options, service bulletin implementation and design options. These reviews and discussions usually result in a revision of the draft ORD/RFP to make the wording more compatible with the available commercial products or commercial practices.

### IMS

The Integrated Master Schedule (IMS) is an integrated relational network schedule for the entire program. It is prepared and updated by the IPT before contract award and by the contractor after contract award. All interrelationships of activities are identified so that a true critical path can be

determined and managed to. The contractor prepared IMP and IMS are tools used to manage the program after contract award.

### CBD SYNOPSIS

The CBD synopsis is accomplished by the IPT and is published in the CBD to announce the impending release of the draft RFP. All companies that want to receive the draft RFP are requested to respond.

### DRAFT RFP

The draft RFP is updated after all comments are resolved. The document is then prepared for electronic/paper distribution.

### RELEASE DRAFT RFP

A copy of the draft RFP is placed on the electronic bulletin board and sent (if requested) to the user, FAA, other appropriate government offices, and respondents to the CBD synopsis with a formal request for their review and comments. A copy of the SAMP and draft Qualification Operational Test and Evaluation (QOT&E) plan are provided with the draft RFP to help the bidders understand the government's role in the program.

### ORD

The final ORD is signed by the MAJCOM Commander and validated by the Chief of Staff of the Air Force.

### POST DRAFT RFP DISCUSSIONS

The program office reviews the responses as they come in to determine if there are any questions that require response prior to meeting with the potential offerors. If so, answers are prepared and sent out in time for the offerors to prepare for their meeting with the program office. Each potential offeror is given an opportunity to meet with the program office and other government offices separately to discuss the draft RFP. Requirements that preclude the use of commercial options or commercial practices will be emphasized.

### SOLICITATION REVIEW BOARD (SRB)

The SRB is an independent panel that reviews the RFP prior to release. It is comprised of highly experienced individuals outside the IPT, preferably with commercial aircraft acquisition experience. The SRB findings are recommendations that are not binding on the program manager.

References: DoDD 5000.2, AFMCR 70-7

### RFP

The program office updates the RFP based on the comments received, draft RFP discussions, and the final ORD.

### CBD SYNOPSIS

This notice of contracting action (NOCA) is the formal announcement that release of the RFP is imminent and is the final solicitation for sources to respond to the RFP.

### RELEASE RFP

After receiving approval for release, the RFP is prepared in final form and is released in electronic/paper form to potential contractors for submittal of their proposals. A copy of the SAMP and draft QOT&E plan are provided with the RFP.

### RFP DISCUSSIONS

After release of the RFP, the IPT addresses questions of general interest via the RFP Bulletin Board. Conferences with individual bidders are conducted only upon request. Only formal communications and discussions will be conducted after release of the RFP.

### INDUSTRY PROPOSALS

The bidders submit their proposals in response to the final RFP. This submittal may be done electronically.

### SOURCE SELECTION

Integrated product teams will be formed for evaluating the proposals, which may have portions presented orally. The preliminary design of the missionization for a nondevelopmental commercial

aircraft is reviewed to determine the bidders' understanding of the effort and the risks involved. Proposal data is also reviewed to determine which ORD requirements can be verified by the basic FAA certified commercial aircraft before missionization and to determine the risks associated with the proposed commercial processes. In addition to an evaluation of the proposals, an operational demonstration may be conducted by the RTO and the user. This involves both ground and flight evaluations of a representative system the offeror is proposing. The end result is a decision by the Source Selection Authority (SSA) on which proposal was considered the most favorable to the Air Force. The FAA serves as an advisor to the Source Selection Evaluation Board/Team and the SSA.

References: AFR 55-20, AFRD 62-4, Draft DoD/FAA MOA

### MILESTONE I/III DECISION

The Defense Acquisition Executive (DAE) or, when delegated, the Designated Acquisition Commander (DAC) decides whether or not to proceed with the program. The Milestone III decision is a purchase decision that is made concurrently with contract award on NDI commercial aircraft acquisition programs rather than being a production decision based on DT&E or Initial Operational Test and Evaluation results, as are development programs.

### REWORK

Rework some or all of the previous steps to alleviate problems identified at the milestone review.

### AWARD CONTRACT

After the completion of source selection and the Milestone I/III decision, the contract will be signed by the Air Force and the winning contractor for acquisition, logistics support, and follow-on training (may be more than one contract). The program office will also notify the losing bidders and offer each one a debriefing that includes the overall rankings of all bidders and the evaluated costs and technical ratings of the winning bidder and the bidder being briefed. Losers will be provided an opportunity to receive feedback on their proposals.

## POST-AWARD PROCESS

The top line of the post-award process flow chart (Appendix G) represents the design and production functions, the center line represents the test function, and the bottom line represents the logistics function. The schedule for this phase is program dependent and is not provided.

### PROGRAM REQUIREMENTS REVIEW

Within a month after contract award, the program office will conduct a conference at the contractor's facility. This review is to establish a partnering relationship, to verify that there is a common understanding of the requirements, and to determine if any administrative changes need to be made to clarify the wording of any contractual documents. The IMP provided with the proposal will also be discussed to verify a common understanding of the prerequisite tasks and completion criteria for each event and milestone identified. This discussion will include planning for test, training and technical manuals. Normal technical manual (TM) requirements for commercial aircraft acquisitions include customized commercial flight and maintenance manuals (for organic maintenance). IPT personnel will also discuss the contract, the program, and special oversight responsibilities with DoD contract administration personnel.

References: FAR Part 42.5, DoDI 5200.1, DoDI 4151.9, AFD 21-3, AFI 11-215, AFMCI 21-301, TO 00-5-1, TO 00-5-2, TO 00-5-3

### PRELIMINARY DESIGN REVIEW (PDR)

A PDR is not conducted on most nondevelopmental aircraft acquisition programs. The PDR is a review of the contractor's design approach for developmental portions of the missionization of the basic aircraft and their integration. The PDR is scheduled to take place after the prerequisite tasks identified in the IMP/IMS are accomplished to ensure that enough data are available to assess technical risk. At the PDR, the contractor presents the design approach for complying with each of the developmental specification requirements. The contractor documents the significant discussions and statements in minutes. Action items are assigned for unanswered questions and for design concerns. The preliminary design of

nondevelopmental portions of the missionization is reviewed during source selection.

References: DoDI 5000.2, MIL-STD-1521, Systems Engineering Management Guide

### SITE ACTIVATION PLANNING

Site activation planning is to ensure that the operating base(s) are prepared to accept and operate the aircraft. This planning includes facilities, manning, spares, and support equipment.

References: DoDD 5000.39, SD-2, DoDI 5000.2

### SPECIFICATION VERIFICATION MATRIX

This matrix documents the verification methods (FAA certification, demonstration, test, inspection, or analysis) that will be used show compliance with each missionization requirement in the contractual specifications. The matrix submitted with the contractor's proposal is updated to reflect changes agreed-to at the Program Requirements Review. It is then used to track verification and sign-off as the configuration audit increments are accomplished.

This document may be prepared by the IPT on simple nondevelopmental FAA certified aircraft acquisition programs when a commercial customer acceptance process will be utilized instead of the formal test plan approach. In this case, the program office, with the help of the user, identifies the requirements in the commercial specification that will be verified and the methods of verification.

References: MIL-STD-973

### SPARES AND SUPPORT EQUIPMENT (SE) PLANNING

The Government and the contractor jointly determine, through iterative reviews, what and how many spares, repair parts and support and test equipment will be required to operate and maintain the system for an initial period of service. This step can be eliminated if there are no plans to purchase the spares or SE.

References: FAR Part 12



### CRITICAL DESIGN REVIEW (CDR)

The CDR is an incremental review of the contractor's detailed design for the missionization of the commercial aircraft. The CDR is scheduled to take place after the prerequisite tasks identified in the IMP/IMS are accomplished to ensure that enough data is available to assess technical risk. At each CDR increment, the contractor presents detailed design information (e.g., briefing charts, design drawings, analysis reports) to show how it is complying with each of the specification requirements. Each increment will consist of a small group of people reviewing a portion of the contractor's design. The contractor documents the significant discussions and statements in a set of minutes. Action items are assigned for unanswered questions and for design concerns. Although the design is not approved at the CDR, the design is essentially frozen from all changes except those to correct deficiencies or from approved specification changes.

References: DoDI 5000.2, MIL-STD-1521, Systems Engineering Management Guide

### TEST PLANNING

Test Plan Working Groups (TPWGs); consisting of the contractor, program office, RTO, FAA, AFOTEC and users; are conducted to coordinate the required testing in order to minimize duplication with prior FAA certification testing and specification verification testing and to identify required resources and Type 1 training.

References: AFI 99-101, AFMCR 80-5

### IN-PROCESS REVIEW (IPR)

IPRs are periodic reviews of the contractor's progress on technical manuals being prepared in accordance with contractual requirements. These are normally commercial manuals and the IPRs address only supplemental material added as a result of missionization or to meet Air Force-peculiar requirements. The manuals covering the basic aircraft are not reviewed. For commercial manuals that will be entered into the Air Force technical order system, the IPRs not only review the contractor's progress, but provide guidance concerning format and technical content (missing or inaccurate data, data that needs amplification, etc.).

References: DoDI 4151.9, AFPD 21-3, AFI 11-215, AFMCI 21-301, TO 00-5-1, TO 00-5-3

### EVALUATION TEAM TRAINING

Air crew and maintenance evaluation team training for specification verification, TM validation/verification (if required) and operational evaluation is conducted by the contractor.

### DELIVERY OF GFE

Delivery of GFE will follow a schedule negotiated between the contractor and the Government. Based on this schedule, items identified as GFE will be provided through the source of supply (an ALC, Defense Logistics Agency Supply Center, etc.) to the contractor. The GFE manager will release a Purchase Request (PR), Military Interdepartmental Purchase Request (MIPR), or MILSTRIP requisition to the source of supply for the item.

References: AFMCPD 23-1

### TEST PLAN

The test plan documents test and demonstration procedures that will be used to show compliance with applicable specification requirements. The test plan is reviewed by the IPT and RTO for adequacy, technical content and safety concerns. The IPT approves the test plan after all problems have been resolved.

This document may be replaced by a customer acceptance plan on simple nondevelopmental FAA certified aircraft acquisition programs. In this case the program office prepares the customer acceptance plan, with the help of the user, that is signed by both the contractor and the Government. The contractor's FAA certification flight test procedures will be supplemented as necessary with government prepared procedures for the flight portion of the customer acceptance process.

References: DoDD 5000.3, AFI 99-101

### TECHNICAL REVIEW BOARD (TRB)

The TRB is an independent group of people in the RTO who review the test planning to assess technical adequacy. The TRB reviews this planning before the IPT approves the test plan. IPT and contractor personnel may support the TRB if

required. This step is necessary only on complex Qualification Test and Evaluation (QT&E) programs.

References: AFMCR 80-5, AFMCR 127-8

### TM VALIDATION

TM validation is accomplished by the contractor and witnessed by the IPT, ALC and user. This ensures that military TMs are technically accurate, adequate, safe, and readily understandable. This step can be combined with TM verification on non-complex TM development programs. It can be eliminated when the commercial manuals will not be entered into the Air Force technical order system.

References: DoDI 4151.9, AFPD 21-3, AFI 11-215, AFMCI 21-301, TO 00-5-1, TO 00-5-3, TM 86-01

### A/C #1 ASSEMBLY

The first aircraft is built/missionized according to the FAA approved Production Certificate or modification process.

References: DoDI 5000.2, DoD Handbook SD-2

### SAFETY REVIEW BOARD (SRB)

The SRB is an independent review of the test plan by the RTO to assess and minimize safety risk. Functional experts, including IPT and contractor personnel (as required), make up the SRB. The SRB is conducted after the TRB but prior to IPT approval of the test plan. This step is necessary only on complex QT&E programs and should be done in conjunction with the FAA's Pre-Flight Type Board.

References: AFMCR 80-5, AFMCR 127-8

### FLIGHT READINESS REVIEW BOARD (FRRB)

The FRRB is a final review of all aspects of the program before the first flight of the fully missionized aircraft. The FRRB ensures that test procedures are approved, safety has been adequately considered, all required modification and maintenance actions are completed, any necessary ground testing has been performed, and the FAA's Pre-Flight Type Board has been successfully accomplished. The FRRB consists of all TPWG mem-

bers and usually occurs immediately prior to the beginning of flight test and may be done in conjunction with the FAA's Pre-Flight Type Board.

References: AFMCR 80-5

### FIRST FLIGHT RELEASE

The flight release is granted by the System Program Director for the test team to begin flight testing. The FAA may issue an experimental certificate of airworthiness for flight testing.

### REWORK

If first flight release is not achieved, corrective action is required to receive flight release.

### QT&E/QOT&E/FAA CERTIFICATION

This is the combined specification, operational and certification test phase which may be at multiple sites using multiple aircraft or at one site using one aircraft, depending on the program structure. The goal is to minimize duplicative events among the agencies. Each agency remains an independent entity with the contractor integrating the efforts and all parties sharing data. The results will be specification verification efforts, TM verification, training, initial operational assessments, and completion of FAA certification. A deficiency tracking system is established whereby design and/or test failures are identified which may result in design changes and appropriate retests to prove specification compliance.

This formal combined test team process may be replaced by a commercial customer acceptance process on simple nondevelopmental FAA certified aircraft acquisition programs. In this case, Air Force testing (demonstrations) of the missionized aircraft occurs after FAA certification is completed.

References: AFI 99-101, AFI 99-102, AFPD 62-4, FAA Handbook 8110.4

### INITIAL OPERATIONAL TRAINING

The contractor provides initial user training for maintainers and flight crews.

References: AFI 36-2201

## CONFIGURATION AUDIT

The configuration audit is an incremental process through which the contractor provides evidence to the program office that contractual specification functional requirements have been satisfied. This is an ongoing process as the demonstrations, tests, analyses, and inspections are completed by the combined test team. The program office will sign off the requirement when the evidence is considered adequate to verify compliance. FAA data and existing data will be utilized when possible. Additionally, those basic aircraft requirements verified during Source Selection will be signed-off at the first increment based on proposal data.

The configuration audit also is a process through which the contractor provides evidence to the program office that the "as-built" configuration of a developmental configuration item matches the technical design documentation to establish/verify the product baseline. This involves a detailed audit of engineering drawings, specifications, technical data, tests and quality control records utilized in the production of the developmental configuration item. The audit also determines that the acceptance testing requirements are adequate for acceptance of production units. For nondevelopmental commercial aircraft acquisitions, the audit is conducted only on the aircraft missionization and most of the requirements are satisfied by the FAA. For example, the required Air Force audits of the contractor manufacturing and drawing process are satisfied by the FAA conformity inspections.

This configuration audit process may be replaced by a commercial customer acceptance process on simple nondevelopmental FAA certified aircraft acquisition programs. In this case, the program office prepared verification matrix is signed off as each item is verified to be compliant with the specification requirements.

References: MIL-STD-973, MIL-STD-1521

## TM VERIFICATION

This is the formal process by which IPT and user personnel evaluate and prove that TMs are accurate, adequate, safe, and usable to support the user's operations and maintenance concepts. This step can be combined with TM validation on non-complex TM development programs. The equivalent commercial process will be used when

the commercial manuals will not be entered into the Air Force technical order system.

References: DoDI 4151.9, AFPD 21-3, AFI 11-215, AFMCI 21-301, TO 00-5-1, TO 00-5-3, TM 86-01

## FINAL SPARES AND SE LISTS

The final spares and SE lists are prepared as a result of the SE and spares provisioning process and specify the spare parts and SE to be stocked and maintained by the CLS contractor through the Contractor Operated and Maintained Base Supply (COMBS).

## DEDICATED QOT&E READINESS CERTIFICATION

The program office certifies to AFOTEC that the system is in the production configuration, meets specification, and is ready for dedicated QOT&E.

References: AFI 99-101, AFI 99-102

## REWORK

If QOT&E readiness certification is not achieved, corrective action is required to receive it.

## FAA CRITERIA DEVIATION APPROVAL

Based on the results of design analysis and testing, assessments are made of areas, if any, where compliance with FAA criteria will not be achieved. An equivalent level of safety finding or design change will be considered before a deviation is requested. HQ AFMC must approve deviations prior to the contractor being authorized to list the items on the conformity certificate (FAA Form 8130-2).

References: AFPD 62-4, Federal Aviation Regulation Part 21, Draft DoD/FAA MOA

## REWORK

If deviation approvals are not achieved, corrective action is required to resolve the problems.

## SITE ACTIVATION AND SPARES/SE DELIVERY

Site activation and delivery of spares and SE is concluded by activation of government and con-

tractor facilities at the operating base(s) and delivery of spare parts and SE to the COMBS.

#### FINAL CONFIGURATION AUDIT

The remainder of the specification requirements that were not signed-off during the incremental audits will be reviewed at this time. All action items will be signed-off or a close-out plan generated.

This final audit increment may be replaced by the commercial customer acceptance process on simple nondevelopmental FAA certified aircraft acquisition programs. In this case, the program office prepared verification matrix is signed off as each remaining item is verified to be compliant with the specification requirements.

References: MIL-STD-973

#### DEDICATED QOT&E

Dedicated QOT&E is conducted to assess the system's military utility, operational effectiveness, and operational suitability, as well as to determine the need for any additional modifications. It is accomplished by operational and support personnel of the types and qualifications expected to use and maintain the system. It is conducted in as realistic an operational environment as possible. Dedicated QOT&E is done after the contractor and acquisition personnel have completed QT&E and will concentrate on those areas not covered during the combined QT&E/QOT&E. It is normally accomplished prior to Air Force acceptance of the aircraft.

References: DoDI 5000.2, AFI 99-101, AFPD 62-4, AFI 99-102

#### CLS/COMBS SUPPORT

A contractor logistics support (CLS) contractor provides maintenance and supply support to the system through a COMBS. This support can be for some or all levels of maintenance (organizational, intermediate and depot). The CLS contractor also provides TM updates for all changes, both common to all commercial operators and military unique.

References: DoDI 5000.2

#### DELIVERY

A DD Form 250, or commercial equivalent, is used by the contractor to obtain payment for delivered items. Normal commercial documentation will be used to show Air Force acceptance of each aircraft.

References: FAR Part 42.3

#### CONFIGURATION STATUS ACCOUNTING

Configuration status accounting is a process to record and report information needed to manage configuration items. The commercial contractor has a status accounting system in place; therefore, only value-added tasks will be made contractual.

References: MIL-STD-973

#### SUPPORT FOLLOW-ON OPERATIONAL TEST AND EVALUATION (FOT&E)

FOT&E is conducted after delivery of the first aircraft to evaluate changes made to correct deficiencies.

References: AFI 99-101

#### PRODUCTION OF A/C #2+

The second and subsequent aircraft will be produced per the approved design.

References: DoDI 5000.2, DoD Handbook SD-2

#### TECHNICAL DATA SUPPORT PROCESS

The publishing and maintenance of TMs and other technical data will be accomplished by the Government and the contractor. TMs that are not entered into the Air Force technical order system are published and maintained by the contractor.

References: DoDI 4151.9, AFPD 21-3, AFI 11-215, AFMCI 21-301, TO 00-5-1, TO 00-5-3

#### PRODUCTION ACCEPTANCE TEST AND EVALUATION (PAT&E)

PAT&E is accomplished by the user or the Defense Contract Administration Service (DCAS). This acceptance testing verifies that each production aircraft meets Air Force requirements. The FAA approved quality process verifies that each aircraft conforms to the approved design configu-

ration. This testing may be replaced by a commercial customer acceptance process on simple nondevelopmental FAA certified aircraft acquisition programs.

References: AFI 99-101

### **FOLLOW-ON TRAINING**

The contractor provides training of flight crews after initial cadre training. This may be accomplished through a separate contract or through provisions imbedded in either the acquisition or support contracts.

### **RECEIPT AND INSPECTION BY USER**

A maintenance inspection will be conducted by the gaining operational unit to ensure that the delivered aircraft is capable of safely performing its

designated mission. This inspection includes system checks, component checks, and safety checks and should normally be conducted in conjunction with the production and acceptance of each aircraft.

References: TO 00-20-1, TO 00-35D-54

### **ACQUISITION CONTRACT CLOSE-OUT**

After all actions and requirements are completed on the acquisition contract, the procuring contracting officer will certify that the acquisition contract is complete and closed. The official contract file is then moved to the inactive files. All provisions remaining in effect (e.g. warranty, continuation training, etc.) will transfer to the CLS contract.

# AIR FORCE USE OF FAA CERTIFICATION

FAA certification of military derivative aircraft is not a new concept. With the exception of the C-5, C-130 and C-17, all transport and trainer aircraft purchased by the Air Force since the early 1970's have been FAA certified to the maximum extent practical. This includes the T-43 (B737), C-9 (DC-9), KC-10 (DC-10), C-12F (Beech Super King Air), C-18 (B707), C-20A/B/C (Gulfstream III), C-20H (Gulfstream IV), C-21 (Lear 35), C-22 (B727), C-23 (Shorts 330), E-4 (B747), VC-25A (B747), C-26 (Metro III), E-8 (B707), and C-29 (BAe 800-125). This list does not include those aircraft currently being procured and those aircraft that were not fully FAA certified but did use FAA criteria in part.

Air Force Policy Directive (AFPD) 62-4 requires that commercial derivative aircraft comply with civil airworthiness standards set by the FAA. The Air Force also maintains currency of the FAA type certificate which requires FAA approval of all in-service modifications. The reasons for these policies are: lower development, production and operating costs; greater interchangeability; and improved ability to dispose of surplus transport aircraft. This also has the following benefits:

1. Allows continued use of commercial practices and procedures while still maintaining a configuration baseline.
2. Takes advantage of FAA approved commercial Service Bulletin (SB) process.
3. Insures quality control during production and depot level maintenance.
4. Allows maximum commonality with commercial users (thus avoiding unique spares and support equipment expense).
5. Allows Air Force participation in spares pooling, when available (thus decreasing inventory costs and aircraft downtime).
6. Provides firm foundation for recompetition of logistics support and aircraft resale.

While it is not the intent of this section to compare commercial versus military practices, it is important to understand both the benefits and pitfalls of FAA certification of commercial aircraft procured by the Air Force. Tables 1 and 2 identify the business and technical aspects of Air Force commercial acquisitions where benefits can be attained and where new ways of thinking or doing things are required in order to reap maximum advantage from the FAA certification process.

## COMMERCIAL BUSINESS PRACTICES

<u>BENEFITS</u>	<u>PITFALLS</u>
Lower Acquisition Cost	Best Commercial Practice is Undefined
Less Red Tape	Less Budget Flexibility
Fixed Price Contracts	Limited Price Substantiation
Logistics Network In Place	Air Force Fleet Commonality Lost
Aircraft Already Developed	Competition May Not be Equitable
Life Cycle Cost Established	
Shortened Lead Time	
Value Engineering Built In	
Broader Industry Participation	

Table 1

## COMMERCIAL TECHNICAL ASPECTS

<u>BENEFITS</u>	<u>PITFALLS</u>
Using Known Established Product	Low AF Knowledge of Basic System
Reduced Risk	FAA Certification is Airworthiness Oriented
Reduced AF Effort and Costs	Unfamiliar Design Criteria and Test Practices and Procedures
Established Reliability and Maintainability	Differing Maintenance Concepts
Corporate Memory	Dictates Personnel Experienced in Commercial Acquisitions
Built In Component Improvement Program	Conflicting FAR/Mil Requirements
Reduced Use of Mil Specs and Regs	FAA Not Concerned with Mission, Schedule or Cost
Necessitates Clearly Defined Requirements	Tradeoff of User Requirements

Table 2

The FAA certification process consists of three certificates: type/amended type certificates (TC), supplemental type certificates (STC), production certificates and conformity certificate. These certificates provide the following benefits to the Air Force:

1. Type/Amended Type Certificate and Supplemental Type Certificate

- a. Assures past data is usable.

- b. Establishes parts interchangeability.
- c. Assures ability to modify in the future.
- d. Provides for review of maintenance data and minimum equipment lists.

2. Production Certificate

- a. Provides FAA approved quality control system during production.
- b. Allows enforcement of contractor procedures.

- c. Establishes configuration control.
- 3. Conformity Certificate
  - a. Closes the loop on production quality control.
  - b. Allows flexibility to deviate from FAA regulations.

## REQUIREMENTS DEFINITION AND VERIFICATION

FAA philosophy differs from Air Force philosophy primarily in the way requirements are written. The FAA specifies requirements for minimum levels of safety. They rely on the manufacturer to design the aircraft, specify the system performance and develop test requirements based on guidance contained in various FAA regulations, handbooks and advisory circulars.

The Air Force, however, must define the performance and capability requirements that will be used to determine basic aircraft selection and the degree of missionization required. The contractor must determine the difference between meeting the FAA required "minimum levels of safety" and the contractual specification(s) that specifies the missionization requirements and how they are required to be verified (inspection, analysis, demonstration, test or FAA certification). This determination is then reflected in the plans for combined QT&E/QOT&E/FAA certification and the configuration audit. The USAF then supplements this with mission performance evaluations during the dedicated QOT&E.

## MILITARY DERIVATIVE CERTIFICATION PROCESS

Air Force use of the FAA certification process is essentially the same as any other commercial customer. The contractor remains the applicant with the FAA and is responsible for insuring FAA certification of the missionized aircraft, including military components such as TACAN, UHF radios, aerial refueling, etc. (Most Air Force contracts require all equipment to be contractor furnished equipment, including military components.) Modifications to commercial aircraft can be approved in any of the following three methods:

- 1. Amendment to Type Certificate
  - a. Only TC owner can request.
  - b. Available to other customers.
- 2. FAA Form 337
  - a. Anybody can request.
  - b. Used for simple changes.
  - c. Issued by local manufacturing/airworthiness inspector.
  - d. Generally for only one aircraft.
- 3. Supplemental Type Certificate
  - a. Used for complex modifications.
  - b. Local inspector must "bless" flight test prior to issuance of STC (possible temporary experimental type certificate).
  - c. STC is owned by applicant and can be sold.
  - d. Only a designated alteration station (DAS) or FAA certified repair station can request.

Air Force commercial aircraft certification programs, however, can become more complicated when Air Force requirements exceed similar FAA requirements and when Air Force mission requirements result in design features that aren't covered by civil criteria or that clearly violate FAA criteria.

Where military requirements exceed civil requirements, a "give and take" must take place between FAA and Air Force criteria. If the requirement is a valid one (and is not reduced to the civil criteria), the contractor can either have the FAA evaluate the higher criteria (if it's just a numerical difference) or the Air Force conducts evaluations to verify the additional requirements. In some cases, the FAA uses the military evaluation results to show compliance with the equivalent civil criteria.

Where the military derivative design is not covered by the civil criteria, the contractor is required to pursue equivalent level of safety findings while giving consideration to the military operation, crew concept and mission usage. This includes seeking expert assistance from the Air Force.

Design features that are not certifiable are not included in the FAA approved type design and are documented on FAA Form 8130-2 (Conformity Certificate - Military Aircraft). These non-conformities/deviations must be approved by AFMC/DO and, if not approved, would require the



contractor to make design changes to get complete FAA certification and may require a change in the contractual specification(s) and Operational Requirements Document. Therefore, it is critical that the FAA be involved in design reviews and test planning meetings from the beginning of the program to preclude last minute certification problems with the resulting schedule delay.

These concepts are covered in the Draft DoD/FAA MOA and in Action Notice 8130.24 issued to FAA Order 8110.4 (Type Certification). See Appendix G of the Commercial Aircraft Acquisition CPT Report for a more complete description of the FAA certification process.

### SUITABILITY EVALUATIONS

FAA certification is sufficient, in most cases, to verify the suitability of the basic commercial aircraft for the Air Force mission. However, some ground and flight evaluations of the candidate aircraft may be necessary during market surveys before RFP release or during source selection as operational demonstrations, especially if there is a significant difference between the Air Force mission and civilian usage of the aircraft. These suitability evaluations must be accomplished prior to selecting the commercial aircraft because any undesirable characteristics of the basic aircraft found during QT&E/QOT&E of the missionized aircraft cannot be easily corrected.

The content of the ground and flight suitability evaluations is dependent on the Air Force mission the aircraft is being considered for. However, the following areas should be considered for flight evaluation on all commercial aircraft acquisitions since the FAA requirements are significantly less stringent than the comparable military requirements.

#### 1. Stalls

- a. Assess stall characteristics during accelerated stalls.
- b. Assess stall characteristics with the critical engine inoperative.
- c. Assess stall departure resistance.

#### 2. Roll Performance

- a. Assess roll performance at very slow speed.
- b. Determine roll performance at the aircraft's Mach limit.
- c. Assess roll performance during closed-loop handling qualities tests.

#### 3. Maneuvering Stability

- a. Assess maneuvering stability at both the forward and aft cg limits.
- b. Determine maneuvering stability at both the aircraft's Mach and Q limits.
- c. Assess maneuvering stability during closed-loop handling qualities tests.

#### 4. Trim Systems

- a. Evaluate trim forces due to configuration changes.

#### 5. Engine Out/Asymmetric Thrust

- a. Evaluate the effects of transients and delayed pilot reactions.
- b. Assess engine out stall characteristics.
- c. Evaluate engine loss during take-off with crosswinds from the most unfavorable direction.

#### 6. Human Factors/Ergonometry

- a. Conduct a subjective evaluation using questionnaires and rating scales.
- b. Trained human factors engineer/psychologist should prepare questionnaire.
- c. Pilot should review draft questionnaire for understanding.

# RECOMMENDATIONS

## AIR FORCE ACQUISITION MODEL

The Air Force Acquisition Model (AFAM) is structured for a developmental program. Acquisition of nondevelopmental FAA certified commercial aircraft is not addressed by the AFAM. In fact, the only mention of nondevelopmental item (NDI) acquisition is in the Evaluate Existing Foreign Technology tasks of the Pre-Concept Exploration, Concept Exploration, Demonstration/Validation, and Engineering and Manufacturing Development phases.

The Pre-Concept Exploration phase defined in the AFAM is essentially the same for commercial aircraft acquisitions. The following changes should be made to the description of the AFAM Preliminary Mission Need Statement task (0.1.3.1) to accommodate NDI commercial aircraft acquisition programs.

1. Include a requirement in paragraph 4 to contact the product center office that has been conducting market surveillance of the commercial aircraft industry to determine if a commercial product could be a potential materiel alternative.
2. Paragraph 7.d should also indicate that the Potential Materiel Alternatives section identifies commercial products in production or development that may satisfy the mission needs.

The post Milestone 0 commercial aircraft acquisition process is substantially different from the process defined in the AFAM. The Concept Exploration, Demonstration/Validation, and Engineering and Manufacturing Development phases defined in the AFAM are replaced by a market research and RFP preparation phase for commercial aircraft acquisitions. The AFAM should include a branch to an alternative NDI acquisition process when the ADM/PMD requires an NDI acquisition program.

## WAIVERS

Most of the recommendations identified by the Commercial Aircraft Acquisition CPT have been implemented, as indicated in Appendices B and C. In addition, implementation of FASA through the Federal Acquisition Regulations has removed most of the statutory and regulatory contracting impediments for nondevelopmental commercial aircraft acquisition and support. However, the following waivers are needed to provide relief from remaining impediments to the use of commercial practices.

### STATUTORY

#### 41 CFR 101-46, PROVISIONS TO PERMIT EXCHANGE OR SALE OF AIRCRAFT

Requires that any funds received from the sale of excess government aircraft be returned to the U.S. Treasury.

**Rationale:** Normal commercial practice includes the trade-in of old aircraft to offset some of the cost of replacement aircraft. Historically, commercial aircraft acquisitions by DoD have been prohibited from performing a trade-in of aircraft being replaced. The commercialized processes used for the second C-20H included, for the first time in history, trading residual aircraft economic value for credit on a new aircraft purchase.

**Benefits:** Implementing this waiver will save a significant amount of money, both in terms of aircraft trade-in values and in saved manpower. An extensive waiver process, that normally takes up to six months, must be accomplished for each commercial aircraft acquisition program that includes a trade-in of old aircraft.

**Risks:** None if approved. Significant cost and schedule impacts if not approved.

**Recommendation:** Allow the economic value remaining in an old aircraft to offset the acquisition cost of new commercial aircraft systems. This gives the acquisition IPT the ability

to make the most efficient use of taxpayer investments and gives added flexibility in aircraft disposal. Substantial time and money can be justifiably saved if a blanket waiver authority is granted for all commercial NDI aircraft acquisitions involving the Operational Support Airlift (OSA) and Special Air Mission (SAM) missions.

## DEPARTMENT OF DEFENSE

### DOD 7000.14-R, VOL. 2A, CHAP 1, PARA. 010208, NONDEVELOPMENTAL ITEM PROCUREMENT

States that when commercially available items must be modified to satisfy user requirements, "the first article, modification of the first article, and first article testing should be budgeted in the Research and Development appropriations."

**Rationale:** All of the commercial aircraft candidates have to be modified (missionized) to some extent in order to meet the operational requirements. Since no research and development funds are provided for NDI commercial aircraft acquisition programs, compliance with this regulation makes the programs unexecutable.

**Benefits:** Allows the execution of the programs and permits necessary missionization of the potential aircraft to comply with operational requirements.

**Risks:** None if approved. Significant risk is added if not approved due to the required reprogramming of scarce research and development funds.

**Recommendation:** Waive the requirement to fund modification to nondevelopmental aircraft with research and development funds.

### ASSISTANT SECRETARY OF DEFENSE MEMORANDUM DATED 30 APRIL 1992 ON COMMAND, CONTROL, COMMUNICATIONS AND INTELLIGENCE REGARDING GPS USER EQUIPMENT

Present DoD requirements specify that all DoD global positioning system (GPS) common user equipment be developed and procured through the GPS Joint Program Office (JPO) and be provided

as GFE; that all users employ GPS precise positioning service (PPS) incorporating both selective availability and anti-spoofing features (i.e. P/Y code) to support combat operations; that the development and procurement of the P/Y GPS equipment (PPS equipment and PPS security devices, including that for special applications) be coordinated with the GPS JPO.

**Rationale:** Commercial aircraft are procured using streamlined commercial acquisition practices. The ORD for commercial aircraft normally requires that an integrated navigation solution be provided which includes an integrated GPS capable of nonprecision approaches and accommodating future upgrades such as precision approach capability, P/Y code and integrity monitoring. The GPS will normally be integrated into the basic commercial aircraft's flight management system (FMS). These commercial aircraft are normally transports that will not be used in combat operations.

**Benefits:** Incorporating a commercial GPS provides many benefits presently not available with an existing military GPS which must be obtained through the GPS JPO. The benefits deal with technical, cost and schedule issues. A commercial GPS can be obtained to provide non-precision approaches, using 8 to 12 channel GPS receivers. With the availability of differential GPS, Wide Area Augmentation System (WAAS), and Local Area Augmentation System (LAAS); nonprecision and precision approaches with equipment that complies with FAA Technical Standard Order (TSO) C129 can be performed. Presently, commercial GPS receivers with the above features can either be obtained now or can be obtained with growth capability for future upgrades. Anti-jamming and anti-spoofing capability may be made available in the future for commercial GPS systems. Significant cost and schedule benefits may be obtained by obtaining commercial equipment directly through the airframe manufacturer without having to wait in line (based on program priority) for the availability of military GPS receivers, which do not have the above mentioned capabilities of commercial equipment. To the maximum extent possible, P/Y capability will be incorporated by the most appropriate FAA approved equipment to achieve that capability.

**Risks:**

a. If the waiver is approved, the risk (from JPO's point of view) is that the commercial GPS application is a non-standard solution. However, since the commercial GPS will be commercially maintained, that particular risk will be minimal while significant additional capability will be obtained.

b. If the waiver is not approved, significant risks from technical, cost and schedule point of view will be realized. By using a military GPS, ORD requirements for nonprecision and later precision approaches cannot be obtained without requiring extensive development which will result in significant cost increases and schedule slippage. This solution would definitely not allow use of NDI equipment.

**Recommendation:** Waive the application of JPO GPS user equipment (UE) for commercial aircraft with no combat role, allow the use of commercial GPS, and upgrade to P/Y code by the most appropriate FAA approved method when the equipment becomes available.

## AIR FORCE MATERIEL COMMAND (AFMC)

### AFPD 62-4, PARA. 1.8.2, FAA CRITERIA DEVIATION APPROVAL

Based on the results of testing, assessments are made of areas, if any, where compliance with FAA criteria will not be achieved. At that time decisions regarding equivalent level of safety, design change, or deviation can be made. HQ AFMC must approve deviations prior to the contractor being authorized to list the items on the conformity certificate (FAA Form 8130-2). Prior to this, all alternatives for equivalent level of safety certification (FAR Part 21 and the draft DoD/FAA MOA) will have been exhausted.

**Rationale:** The current process puts approval at a level which is unfamiliar with FAA certification, expected system use, and the proposed design.

**Benefits:** Reduces the effort, cost, and time required to obtain approval of the deviation while maintaining an adequate level of oversight.

**Risks:** No impact if the waiver is approved. Increased risk of delivery schedule slippage if the waiver is not approved.

**Recommendation:** Move the FAA criteria deviation approval level from HQ AFMC to the System Program Director.

## TAILORING OF ACQUISITION REGULATIONS

### DOD INSTRUCTION 5000.2

#### DODI 5000.2, PART 7. SECTION A, PARA. 3.E; LOGISTICS SUPPORT ANALYSIS (LSA)

Requires that a LSA, using MIL-STD-1388 as a guide, be used iteratively throughout the acquisition program as an integral part of the systems engineering process.

**Rationale:** LSA, as described in MIL-STD-1388, is not a standard commercial practice; therefore, it should not be levied on the NDI commercial aircraft acquisition programs. Following contract award, the provisioning, procurement, and stocking of spares/components for the aircraft, aircraft systems, engines/APUs, and support equipment will be a contractual obligation under contractor logistics support.

Each offeror will perform or has already performed some type of analysis to support the system, though it may not comply with MIL-STD-1388. It would be a burden to force LSA on the bidders and would cause many potential offerors to back out of the competition. LSA is a highly structured method for determining complete support for a weapon system and works well with a developmental program where no support has been determined.

Specifically, LSA tasks 402, 403, and 501 are recommended by SD-2, "Buying NDI". These tasks assume the item being acquired is a sub-system or smaller part of a development program. Task 402, Early Fielding Analysis, is designed to look at what resources will be impacted (i.e., manpower/personnel, spare/SE budget) so that the Government can budget and anticipate resources. These specifics will be handled by the contractor on CLS programs. Task 403, Post-Production Support Analysis, tasks the contractor to anticipate support problems that can come up. This could mean problems with a source, technology changes,

or discontinuations. This is routinely accomplished by the commercial aircraft manufacturers in order to remain competitive in the commercial aircraft market. Finally, Task 501; Supportability Test, Evaluation, and Verification; requires the contractor to determine a test to assure specified supportability requirements are met. Customers in the commercial environment receive lists of support equipment, tools, and spares needed to maintain the aircraft, along with documentation. Since the proposed commercial aircraft are all established and have been supported for some time, the supportability requirements have been proven.

**Benefits:** Avoid unnecessary time and effort to prepare the analysis in a different format using a DoD unique method.

**Risks:** None if approved; substantial cost and schedule if not approved.

**Recommendation:** Waive this paragraph to allow commercial practice in determining support needed.

### **DODI 5000.2, PART 6, SECTION N; CONTINUOUS ACQUISITION AND LIFE- CYCLE SUPPORT (CALS)**

Requires specific contractor proposals for authorizing government access to contractor data bases and integration of contractor information systems and processes for engineering, manufacturing and logistics support. Also recommends that contractors comply with CALS standards (MIL-STD-1840, MIL-STD-1556 and MIL-T-31000) for delivery of technical data to the Government.

**Rationale:** The requirement for a commercial aircraft manufacturer to integrate its internal systems to comply with government requirements, to grant the Government access to corporate data bases, and translate data for input into government systems is well outside standard commercial practices. Normally the commercial aircraft manufacturer will provide customers with the following data: operations manual, airplane drawings, maintenance manuals, fault isolation manuals, engine brochures, log books, loadable software, FAA certificates, and bill of sale receipt. The customer then has the responsibility to integrate this data with their internal systems. NDI commercial aircraft acquisition programs are supported by the

contractor without the input of the technical data into the government systems.

**Benefits:** Allows the best approach for delivery of data, saving integration time and costs.

**Risks:** None if approved; substantial cost and schedule if not approved.

**Recommendation:** Waive the requirement for CALS. NDI commercial aircraft acquisition programs should be granted the flexibility to not burden the contractor with the requirement to convert data to comply with CALS standards when that data will not be input into the government CALS data systems.

### **DODI 5000.2, PART 6, SECTION C, PARA. 3.H; MAINTAINABILITY DEMONSTRATION**

Requires a maintainability demonstration prior to Milestone III.

**Rationale:** NDI commercial aircraft acquisition programs will not have a contract awarded until after Milestone III. In addition, the existing commercial aircraft have demonstrated their capability in commercial operation. Therefore, historical data will be available to adequately evaluate maintainability without a formal demonstration. Any missionization will not appreciably affect overall maintainability and to ensure this, offerors will be required to adhere to best R&M design practices for any missionization efforts. Specification verification efforts on the missionization will evaluate maintainability.

**Benefits:** Eliminates cost and time of duplicating previous efforts.

**Risks:** None if approved; cost and schedule if not approved.

**Recommendation:** In accordance with acquisition streamlining policy, the Air Force should use the previously generated information rather than perform additional testing. Any specification verification efforts on the missionization will meet the intent of the instruction.

### **DODI 5000.2, PART 6, SECTION D, PARA. 3.A; COMPUTER RESOURCES LIFE- CYCLE MANAGEMENT PLAN (CRLCMP)**

Directs creating and maintaining a CRLCMP.

**Rationale:** In the case where the Government would be responsible for maintaining the imbedded computer systems, a CRLCMP would be a valuable asset to ensure that documentation, personnel, hardware and firmware is in place. However, NDI commercial aircraft acquisition programs are supported by the contractor.

There are minimal software changes on these programs, and any maintenance of existing software will be done by the contractor. Computer resource support on nondevelopment programs with mature software should already be in place; therefore a plan would not be helpful. Bidders will identify how the software maintenance will be accomplished and will be responsible for ensuring test, quality assurance and support processes for the software are adequate. The contractor's support plan will address computer resource support issues and configuration management.

**Benefits:** Removes the unnecessary burden of writing a separate document.

**Risks:** None if approved; cost and schedule if not approved.

**Recommendation:** Waive the requirement for a stand-alone CRLCMP, and allow tailored version to be incorporated in the support plans.

## **AIR FORCE SUPPLEMENT TO DODI 5000.2**

### **AF SUP. 1, DODI 5000.2, PART 7, SECTION A, PARA. 3.A - H, PROVISIONING**

Requires the development of a provisioning strategy along with direction on how it should be conducted.

**Rationale:** While a provisioning strategy will be required, NDI commercial aircraft acquisition programs include the requirement for CLS with provisioning the responsibility of the CLS contractor for the life of the system. The contractors use commercial provisioning arrangements based on their experience with mature aircraft.

**Benefits:** Cost avoidance; avoids the cost associated with the formal Air Force provisioning process development and presentation.

**Risks:** None if approved; cost and schedule if not approved.

**Recommendation:** Waive application of referenced paragraphs for the NDI commercial aircraft acquisition programs.

### **AF SUP. 1, DODI 5000.2, PART 7, SECTION A, PARA. 3.E(3), LOGISTICS SUPPORTABILITY ANALYSIS REPORT (LSAR)**

Requires the maintenance of an approved LSAR throughout the life of the program.

**Rationale:** The CLS contractors are expected to use best commercial practices in supporting commercial aircraft operated by the Air Force. Life cycle support costs will be based on available commercial data in commercial format that is derived from actual experience with mature aircraft. Little benefit is perceived from developing a typical LSAR for NDI commercial aircraft acquisition programs. MIL-STD-1388-2B, which governs how the LSAR is structured, is not performance oriented; therefore, it cannot be forced upon the bidders. This will allow the offerors to use analysis that they have already accomplished.

**Benefits:** Cost avoidance; avoids the cost associated with Air Force and contractor personnel developing a formal LSA/LSAR when CLS will be used over the system's life.

**Risks:** None if approved; cost and schedule if not approved.

**Recommendation:** Waive formal application of this reference to the NDI commercial aircraft acquisition programs.

### **AF SUP. 1, DODI 5000.2, PART 7, SECTION A, ATTACHMENT 1, PARA. 4(D)-(J), SUPPORT EQUIPMENT**

Requires support equipment (SE) to be selected in a certain order, use of common hand tools, SE recommendation data (SERD), and SE illustrations (SEIs).

**Rationale:** Because aircraft support is the responsibility of the winning contractor, it would violate the direction of acquisition reform to dictate a process to determine how much and what items of SE will be needed. The aircraft developers have already established lists of suggested SE, tools and spares that they provide to customers, and the customers determine whether to buy all of

## Recommendations

the support equipment or selected items based on their support strategy. The contractor is responsible for determining what is necessary under the contractor logistics support concept.

**Benefits:** Cost avoidance; avoids the cost of developing the referenced items by the winning contractor.

**Risks:** None if approved; cost and schedule if not approved.

**Recommendation:** Waive application of referenced paragraphs for NDI commercial aircraft acquisition programs.

### AF SUP. 1, DODI 5000.2, PART 7, SECTION A, ATTACHMENT 1, PARA. 5, TECHNICAL MANUALS

Requires the use of logistics support analysis (LSA) in preparation of technical manuals.

**Rationale:** Potential aircraft are nondevelopmental, FAA certified, commercial derivative aircraft. As such, the manufacturers have already developed the basic technical manuals for their aircraft, and these manuals have been verified through many hours of actual use. The only new preparation will be for the missionization of the commercial aircraft. Commonality with the commercial manuals will reduce the cost of preparing and maintaining the technical manuals. By following this approach, the cost of manuals are spread across the entire user community.

**Benefits:** Cost avoidance. The costs of manual preparation is shared with all users of the commercial aircraft. The costs associated with generating a process for the contractor to provide military technical orders is avoided.

**Risks:** If approved, there is some risk (minimal), that the existing commercial manuals will not be entirely adequate for Air Force personnel to maintain the aircraft. This risk can be reduced by providing proper training on the aircraft and on the use of supplemented commercial manuals. There is substantial cost and schedule risk if not approved.

**Recommendation:** Waive the requirement to use LSA in preparation of technical manuals.

### AF SUP. 1, DODI 5000.2, PART 7, SECTION A, ATTACHMENT 1, PARA. 8(A), FACILITIES

Requires the contractor to document facilities data in the Logistics Support Analysis Record (LSAR) and a facility requirements plan.

**Rationale:** The CLS contractor will determine facility requirements. The offerors will provide their facility requirements as a part of their proposal. The format for their plan will be determined by the offerors and will not be directed by the program office.

**Benefits:** Cost avoidance; avoids the cost of developing the LSAR and a formal facility plan. Also, precludes developing facility plans for facilities not under the control of the Air Force.

**Risks:** None if approved; cost and schedule if not approved.

**Recommendation:** Waive formal application of the referenced paragraph for the NDI commercial aircraft acquisition programs.

## Appendix A

# REFERENCES

1. Aircraft System Program Office, "Commercial Aircraft Acquisition Critical Process Team Report," 4 June 1993.
2. Air Force Policy Directive 62-4, "Civil Airworthiness Standards for Transport Aircraft," 14 September 1993.
3. Corbin, Lisa, "Streamlining Federal Acquisition," Government Executive, January 1995.
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6. Erlich, Jeff, "Acquisition Plan Would Ease Rules On Competition," Defense News, page 4, May 22-28, 1995.
7. Federal Acquisition Regulation, Part 10, "Market Research," Draft.
8. Federal Acquisition Regulation, Part 12, "Acquisition of Commercial Items," Draft.
9. National Test Pilot School, I.D. JI OSE 2855-008, "A Comparison of FAR 25 and Military Specifications Flight Test Requirements", 1995.
10. Office of the Assistant Secretary of the Air Force (Acquisition), "Air Force Acquisition Lightning Bolt Initiatives", 1995.
11. Public Law 103-355, "Federal Acquisition Streamlining Act of 1994", 13 October 1994.
12. The Secretary of Defense, "Specifications & Standards - A New Way of Doing Business", 29 June 1994.



# Appendix B

COMMERCIAL AIRCRAFT ACQUISITION CPT REPORT GENERAL RECOMMENDATIONS						20 Nov 95
GENERAL RECOMMENDATION	DOD REGULATION	AF REGULATION	FEDERAL ACQUISITION REGULATION	OTHER	STATUS OF RECOMMENDATION	COMMENTS
GR#1 Program Approval Level	DoDD 5000.1, DoDI 5000.2 (USD(A&T)); SD-2 (OASD(ES)/AP)				Not implemented	
GR#2 Implementation of Previous Recommendations			Parts 7 & 10 (Defense Regulatory Council)	Statute 10 U.S.C. 2325(d)(3) (SAF/AQX)	Most have been implemented	
GR#3 Development of Military Specification Flight Manuals	Mil-M-7700 (AFMC/ENC)	AFR 60-9 (AF/XOORF); AFR 8-2 (AF/LGMM)			Partially implemented by DoDI 5000.2, Part 6, Sect. L, para. 4.c(8)	AFR 60-9 superseded (SS) by AFI 11-215, AFR 8-2 SS by AFDP 21-3
GR#4 Repairs by Original Equipment Manufacturer				Include in lessons learned database (ASC/CYMP); Include in pamphlet (SAF/AQKT)	Not implemented as official guidance	
GR#5 Acceptance of FAA Approved Vendors			Define commercialized contracting process (DUSD(AR))		Implemented by FAR, Part 12	
GR#6 Ground and Flight Risk	DLAM 8200.4	AFR 55-22 (AFMC/DOO)		Educate GFRs (DCSAO); Include in pamphlet (SAF/AQKT)	Not implemented	
GR#7 DoD Computer Language Requirements	DoDI 5000.2 (USD(A&T))				Implemented by DoDI 5000.2, Part 6, Sect. D, para. 3.e(11)(c), AF Sup.	
GR#8 Duplication of Quality Assurance Requirements	DoDI 5000.2 (USD(A&T)); DLAM 8200.4			Educate DLA QA personnel (DCSAO)	Partially implemented by AF Handbook 60-113, Chap. 5, Sect. B, para. 5.7	
GR#9 Non-Value Added and Duplicative Requirements	DoDD 5000.1, DoDI 5000.2 (USD(A&T))	AFR 57-1 (AF/XORJ)			Not implemented	AFR 57-1 SS by AFDP 10-6 & AFI 10-601

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GENERAL RECOMMENDATION	DOD REGULATION	AF REGULATION	FEDERAL ACQUISITION REGULATION	OTHER	STATUS OF RECOMMENDATION	COMMENTS
GR#10 Reprourement Drawing Packages	DoDI 5000.2 (USD(A&T)); DoD-STD-100 (ARDEC/SMCAR); MIL-T-31000 (AMSMI)				Not implemented as official guidance	DoD-STD-100 & MIL-T-31000 rescinded
GR#11 Requirement to Use GPO for TOs	DoDI 5000.2 (USD(A&T))	AFR 8-2 (AF/LGMM)			Not implemented	AFR 8-2 SS by AFDP 21-3
GR#12 Expertise of USAF People in FAA Certification and Commercial Practices				Implement EWI-type program (SAF/AQKT); Air Force Acquisition Model (ASC/CYM); Establish commercial maintenance training program (SAF/AQKT)	Pending approval of DoD/FAA MOA	
GR#13 Implementation of Provisions of DoD/FAA MOA				Fed Aviation Act of 1958 Sections 101, 303, 306 and 1421 (FAA AIR-120); Include in pamphlet (SAF/AQKT)	In coordination within DoD	
GR#14 Commercialized Contracting Process			Define commercialized contracting process (DUSD(AR))		Partially implemented by FAR, Part 12	
GR#15 Government/Industry Forum for Commercial Practices				Establish forum (DUSD(AR))	Not implemented	

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GENERAL RECOMMENDATION	DoD REGULATION	AF REGULATION	FEDERAL ACQUISITION REGULATION	OTHER	STATUS OF RECOMMENDATION	COMMENTS
GR#16 Personnel Development/Training Plan in Commercial/NDI Acquisition				Foster development of training (OASD(P&L)); Consider specialized APDP track (SAF/AQ); Include in pamphlet (SAF/AQKT)	AFRES project established to develop training program	
GR#17 Imposition of Government Management Information and Control Processes	SD-2 (OASD(ES)AP); DoDI 5000.2 (USD(A&T))				Implemented by DoDD 5000.1, Part 1, Sect. C, Para. 6	
GR#18 Incompatibility of DoD Pre-Planned Product Improvement Process with Commercial Change Process		AFR 57-4 (AF/LGMM)			Not implemented	AFR 57-4 SS by DoDI 5000.2
GR#19 Data with Government Furnished Aircraft/Components	DoDI 5000.2 (USD(A&T)); SD-2 (OASD(ES)AP)	AFR 57-4 (AF/LGMM); AFSC/AFLCR 800-31 (AFMC/LGS)		Include in pamphlet (SAF/AQKT)	Not implemented as official guidance	AFR 57-4 SS by DoDI 5000.2, AFSC/AFLCR 800-31 SS by AFMCR 800-31
GR#20 Use of Commercial Maintenance Manuals	MIL-M-7298 (USAMC)	AFR 8-2 (AF/LGMM)			Not implemented	AFR 8-2 SS by AFPD 21-3
GR#21 Centralize Acquisition of FAA Certified Aircraft	DoDI 5000.2 (USD(A&T))	AFR 80-36/AFPD 62-4 (SAF/AQKT); AFR 80-14 (SAF/AQV)			ASC/CV evaluating COE designation request from ASC/SD	AFR 80-36 SS by AFPD 62-4, AFR 80-14 SS by AFI 99-101
GR#22 Maintain Qualifications/Integrity of TCAMA		AFMC/DO T&E Policy Directive			Implemented by maintaining TCAMA after move to EAFB	

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GENERAL RECOMMENDATION	DOD REGULATION	AF REGULATION	FEDERAL ACQUISITION REGULATION	OTHER	STATUS OF RECOMMENDATION	COMMENTS
GR#23 Certification of USAF Facilities as FAA Repair Stations		AFR 66-26 (AF/LGMM)		Develop facilities certification program (SAF/AQKT)	Pending approval of DoD/FAA MOA	AFR 66-26 SS by AFI 21-107

# Appendix C

## COMMERCIAL AIRCRAFT ACQUISITION CPT REPORT STEP RECOMMENDATIONS

20 Nov 95

SPECIFIC STEP RECOMMENDATION	DOD REGULATION	AIR FORCE REGULATION	FEDERAL ACQUISITION REGULATION	OTHER	STATUS OF RECOMMENDATION	COMMENTS
SSR#30 Develop Mission Needs Statement (MNS)		AFR 57-1, para 1c (2) (AF/XORJ)			Not implemented as official guidance	AFR 57-1 superseded (SS) by AFRPD 10-6 & AFI 10-601
SSR#100 Program Management Directive (PMD)				Write commercial PMD procedures (SAF/AQ)	Not implemented	
SSR#120 Develop Operational Requirements Document (ORD)		AFR 57-1, para 1c (2) (AF/XORJ); AFP 57-1, para 5 (AF/XORJ)			Not implemented as official guidance	AFR 57-7-1 SS by AFPD 10-6 & AFI 10-601; AFP 57-1 rescinded
SSR#165 Determine GFE Requirements				DI-CMAN- 80008A, para 10.1.5.3.10 (AFMC/ENSP)	Partially implemented	DI-CMAN- 80008A SS by DI- IPSC-81431
SSR#190 ICE/CARD	DoDD 5000.1, DoDI 5000.2 (USD(A&T))				Not implemented	
SSR#200 RFI/Market Surveys			Section 6 (Defense Regulatory Council)		Implemented by FAR, Part 10	
SSR#230 Acquisition Strategy Panel (ASP)		AFSCR 800- 53/AFMCP 800-7 (AFMC/XR)			Not implemented	AFSCR 800-53 SS by AFMCP 800-7
SSR#235 Acquisition Plan Approval			Part 7 (Defense Regulatory Council)		Not implemented	
SSR#280 System Maturity Matrix				Acquisition Policy Memos 92M-001 and 92M-009 (AFAE)	Implemented by SAF/AQ policy	92M-001 & 92M- 009 SS by DoDI 5000.2, AF Sup. 1
SSR#290 Integrated Logistics Support Plan		AFR 800-8 (AF/LEYE)			Implemented	AFR 800-8 rescinded
SSR#300 Acquisition Program Baseline	DoDD 5000.1, DoDI 5000.2 (USD(A&T))				Implemented by Lightning Bolt # 7 and IMP Guide	

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SPECIFIC STEP RECOMMENDATION	DOD REGULATION	AIR FORCE REGULATION	FEDERAL ACQUISITION REGULATION	OTHER	STATUS OF RECOMMENDATION	COMMENTS
SSR#320 Test and Evaluation Master Plan		AFR 80-14 (SAF/AQV)			Not implemented	AFR 80-14 SS by AFI 99-101
SSR#340 Acquisition Review Team (ART) II				ASC Acquisition Policy (ASC/AZ)	ART review of draft RFPs eliminated	
SSR#360 Release Draft RFP		AFR 57-1 (AF/XOXFQ); AFR 80-14 (SAF/AQV)		ASC Electronic Bulletin Board (ASC/CY); ASC Acquisition Policy (ASC/AZ)	Implemented by Executive Order on electronic commerce and AFMC policy	AFR 57-1 SS by AFPD 10-6 & AFI 10-601, AFR 80-14 SS by AFI 99-102
SSR#395 SUMMIT		AFR 57-1 (AF/XOXFQ)			Not implemented	AFR 57-1 SS by AFPD 10-6 & AFI 10-601
SSR#397 JROC II	DoDD 5000.1, DoDI 5000.2 (USD(A&T))				Not implemented	
SSR#400 Milestone I/III Decision	DoDD 5000.1, DoDI 5000.2 (USD(A&T))				Not implemented	
SSR#420 Release RFP		AFR 57-1 (AF/XOXFQ); AFR 80-14 (SAF/AQV)		ASC Electronic Bulletin Board (ASC/CY); ASC Acquisition Policy (ASC/AZ)	Implemented by Executive Order on electronic commerce and AFMC policy	AFR 57-1 SS by AFPD 10-6 & AFI 10-601, AFR 80-14 SS by AFI 99-102
SSR# 425 Bidders' Conference				ASC RFP instructions (ASC/CY)	Not implemented as official guidance	
SSR#430 Industry Proposals				ASC electronic source selection (ASC/CY)	Implemented	
SSR# 465 Program Requirements Review	MIL-STD-499B (Draft) (ASC/ENS)				Not implemented as official guidance	MIL-STD-499B (Draft) canceled
SSR# 470 Preliminary Design Review (PDR)	MIL-STD-499B (Draft) (ASC/ENS)			Sys Engr Mngt Guide (DSMC)	Not implemented as official guidance	MIL-STD-499B (Draft) canceled
SSR#490 Specification Verification Matrix	MIL-STD-973 (OASD(ES)AP)			Develop Data Item Description (OASD(ES)AP)	Not implemented as official guidance	
SSR#500 Technical Order Planning		T.O. 00-5-3, para 7.2.1 & TM-86-01 (AFMC/ENC)			Not implemented as official guidance	

# Appendix C

SPECIFIC STEP RECOMMENDATION	DOD REGULATION	AIR FORCE REGULATION	FEDERAL ACQUISITION REGULATION	OTHER	STATUS OF RECOMMENDATION	COMMENTS
SSR#530 Critical Design Review (CDR)	MIL-STD-499B (Draft) (ASC/ENS)				Not implemented	MIL-STD-499B (Draft) canceled
SSR#600 Technical Review Board (TRB)		AFR 80-14 (SAF/AQV); AFMCR 80-5 (AFMC/DOP)			Implemented by AFMCR 80-5, para. 18 & AFI 99-101, para. 5.24.2	AFR 80-14 SS by AFI 99-101
SSR#630 Safety Review Board (SRB)		AFMCR 80-5 (AFMC/DOP); AFMCR 127-8 (AFMC/SES)			Implemented by AFMCR 80-5, para. 24 & AFI 99-101, para. 5.24.4.3	
SSR#631 Flight Readiness Review Board		AFMCR 80-5 (AFMC/DOP)			Implemented by AFMCR 80-5, para. 27	
SSR# 640 T.O. Validation	MIL-M-7298 (USAMC)	T.O. 00-5-3 para 3.9, 8 and 9; TM 86-01 (AFMC/ENC)			Implemented by T.O. 00-5-3, para. 8-1 and 8-2.12	MIL-M-7298 not approved for use
SSR#680 Qualification Test & Evaluation (QT&E)/Qualification Operational Test & Evaluation (QOT&E)/FAA Certification		AFR 80-14 (SAF/AQV); AFR 80-36 (SAF/AQKT); AFR 55-43 (AFOTEC/XP)		FAA Orders 8110.7 and 8110.8; FAA Advisory Cir 23-8A and 25-7	Partially implemented by AFI 99-101, para. 1.2; AFI 99-102, para. 1.4; AFR 80-36 SS by AFPD 62-4, AFR 55-43 SS by AFI 99-102	
SSR#700 Incremental FCA/PCA	MIL-STD-973, para 5.6 (OASD(ES)AP)				Not implemented as official guidance	
SSR#710 T.O. Verification	MIL-M-7298 (USAMC)	T.O. 00-5-3 para 3.9, 8 and 9; TM 86-01 (AFMC/ENC)			Implemented by T.O. 00-5-3, para. 8-1 and 8-2.12	MIL-M-7298 not approved for use
SSR#730 Dedicated QOT&E Readiness Certification		AFR 80-14 (SAF/AQV)			Not implemented	AFR 80-14 SS by AFI 99-101
SSR#750 FAA Criteria Deviation Approval		AFR 80-36/AFPD 62-4 (SAF/AQKT)			Partially implemented by AFPD 62-4, para. 1.8.2	AFR 80-36 SS by AFPD 62-4
SSR#780 Final FCA/PCA	MIL-STD-973, para 5.6 (OASD(ES)AP)				Not implemented as official guidance	

# Appendix C

SPECIFIC STEP RECOMMENDATION	DOD REGULATION	AIR FORCE REGULATION	FEDERAL ACQUISITION REGULATION	OTHER	STATUS OF RECOMMENDATION	COMMENTS
SSR#790 Dedicated QOT&E		AFR 55-43 (ATOTEC/XP); AFR 80-14 (SAF/AQV)			Implemented by AFI 99-101, para. 1.2 & AFI 99-102, para. 1.4	AFR 55-43 SS by AFI 99-102, AFR 80-14 SS by AFI 99-101 & AFI 99-102
SSR#800 Configuration Status Accounting	MIL-STD-973, Appendix H (OASD(ES)AP)				Implemented by acquisition policy on use of MIL-SPECS and STDs	
SSR#880 Follow-On Training		AFR 50-9 (AF/DPPE)			Implemented by AFI 36-2201	AFR 50-9 SS by AFI 36-2201
SSR#890 Receipt & Inspection by User		AFR 66-14 (AF/LGMM); T.O. 00-20-1 (OC- ALC/TILD.T)			Not implemented as official guidance	AFR 66-14 rescinded



# Appendix D

## Generic Competitive Schedule

ID	Name	Duration	Predecessors	Successors
1	Pre-Award Process (Start Through Award)	332d		
2	Develop RFP	204d		
3	New Start Review/Form RFP Team	1d		4, 6, 7
4	RFP Team Training/Early Planning	5d	3	9, 5SS
5	Review Lessons Learned	5d	4SS	6SS, 7SS
6	Early Technical Requirements/Market Survey	15d	3, 5SS	19, 10, 15
7	Develop Overall PM Strategy	15d	3, 5SS	10, 18SS
8	IASP Tactical Roundtable	18d		
9	IASP Plan Prepared & Approved	5d	4	10
10	Conduct Tactical Roundtable(s)	3d	9, 6, 7	11
11	Issue Minutes	5d	10	27, 13SS, 15SS, 14SS, 16SS, 17SS
12	Develop Acquisition Strategy	76d		
13	Develop PM Strategy	10d	11SS	24, 31SS
14	Develop Contract Strategy	10d	11SS	24
15	Develop Technical Strategy	10d	6, 11SS	18SS
16	Develop Financial Strategy	10d	11SS	24
17	Develop Logistics Strategy	10d	11SS	24
18	Define Technical Requirements	45d	7SS, 15SS	24
19	Security Assessment	5d	6	20
20	Prep & Run Sources Sought Synopsis	5d	19	21
21	Receive Synopsis Responses	20d	20	22
22	Develop Bidders List	1d	21	24, 23
23	RFI/Market Research	30d	22	24
24	Discussions with Industry	10d	13, 14, 16, 17, 22, 23, 18	25, 43, 44, 45
25	Refine Acquisition Strategy	5d	24	27, 50, 51, 52
26	Conduct IASP Review	20d		
27	Prepare Acq Strategy Panel Brief	7d	25, 11	28
28	Acq Strategy Panel	3d	27	29
29	Process ASP Minutes	10d	28	39, 34
30	Prepare Single Acquisition Management Plan	133d		
31	Draft SAMP	30d	13SS	32SS, 34, 37SS
32	Waiver Request Package	10d	31SS	33
33	Waiver Approval	45d	32	35
34	SAMP Review and Coordination	20d	29, 31	35
35	SAMP Approval	20d	34, 33	78, 41FF
36	Prepare Source Selection Plan (SSP)	60d		
37	Draft SSP	10d	31SS, 50SS	38SS
38	Develop Draft Standards	10d	37SS, 48SS, 49SS	41
39	Prepare SSP Delegation Letter	5d	29	41
40	Develop Past Performance Questionnaire	5d	43, 45	84
41	Complete SSP	10d	38, 35FF, 39, 49	78
42	Prepare Draft RFP	63d		
43	Develop Draft SRD	20d	24	55, 48FF, 49FF, 53, 54, 40

## Appendix D

## Generic Competitive Schedule

ID	Name	Duration	Predecessors	Successors
44	Develop CLINs	5d 24		55, 54
45	Develop Draft SOO	5d 24		48FF, 49FF, 55, 47FF, 53, 54, 40, 46
46	Develop CDRL plus Data Call	30d 45		47
47	Conduct DRRB	1d 45FF, 46		55, 54
48	Develop Proposal Instructions	10d 45FF, 43FF		55, 54, 38SS
49	Develop Evaluation Factors	10d 45FF, 43FF		55, 54, 38SS, 41
50	Develop Model Contract Attachments	20d 25		55, 54, 37SS
51	Develop Model Contract Special Provisions	10d 25		55, 54
52	Develop Model Contract Clauses	10d 25		55, 54
53	Establish RFP Library	5d 43, 45		78
54	Establish RFP Bulletin Board	5d 43, 44, 45, 47, 48, 49, 50, 51, 52		78
55	Initial RFP Industry Discussions	5d 44, 45, 47, 48, 49, 50, 52, 51, 43		56SS
56	Assemble DRRP	10d 55SS		57
57	Finalize Draft RFP	15d 56		59, 58SS
58	Notify AFMC/PK & SAF/AQC & USD(A&T) of Release	5d 57SS		59
59	Issue Draft RFP	2d 57, 58		61
60	<b>Finalize RFP</b>	<b>54d</b>		
61	DRFP Review/Solicitation Review Board	30d 59		62
62	DRFP Discussions	5d 61		64, 65
63	Notice of Contract Action	5d 72FF-15d		71
64	Prepare RFP Executive Summary Letter	1d 62		72
65	Revise DRRP into Final	10d 62		66FF
66	Finalize Standards	3d 65FF		67
67	ASC JAG Review of RFP	5d 66		68SS
68	ASC/PKC Review	5d 67SS		69
69	SSA Approves SSP and Standards	1d 68		70FF, 71SS, 72
70	Conduct Initial SSAC Meeting	1d 69FF		76
71	SSA Approval of RFP Release	1d 63, 69SS		73
72	Finalize and Prepare RFP for Release	2d 64, 69		63FF-15d, 73
73	Issue RFP	1d 71, 72		78FS+45ed, 76, 84
74	<b>Source Selection</b>	<b>93d</b>		
75	<b>Receive Proposals</b>	<b>33d</b>		
76	Issue Source Selection (SS) Notification	1d 70, 73		78
77	Source Selection Training	2d 78FF-2d		80
78	Receive Proposals	1d 76, 73FS+45ed, 53, 54, 35, 41		77FF-2d, 80SS, 83FS-15d
79	<b>Initial Evaluations</b>	<b>57d</b>		
80	Number & Distribute Proposals	1d 77, 78SS		89, 81, 85
81	Proposal Familiarization (Contract A)	2d 80		82FS+1d
82	Oral Presentation by Offeror "A"	4ed 81FS+1d		85FS+1d
83	Request PP Data from Offerors' Customers	3d 78FS-15d		92FS+15ed
84	Request Past Performance fm ACO, PCO, PMS	7d 73, 40		93FS+30ed
85	Evaluate/Update Contract A	5d 80, 82FS+1d, 92, 93		86, 96
86	Proposal Familiarization (Contract B)	2d 85		87FS+1d
87	Oral Presentation by Offeror "B"	4ed 86FS+1d		88FS+1d

# Appendix D

## Generic Competitive Schedule

ID	Name	Duration	Predecessors	Successors
88	Evaluate/Update Contract B	5d	87FS+1d, 92, 93	96
89	Initial Evaluation of Cost Proposals	10d	80	90SS
90	Initial MPLCC Estimate	15d	89SS	96, 99
91	<b>PPRAG Evaluation</b>	16d		
92	Receive PP Data from Offerors' Customers	1d	83FS+15ed	85, 88, 94
93	Receive PP Data from ACO, PCP, PMs	1d	84FS+30ed	85, 88, 94
94	Complete Initial PPRAG Evaluation	10d	92, 93	96
95	<b>BAFO Process</b>	31d		
96	Initial Evaluation Briefing to SSA	1d	94, 85, 88, 90	97, 100, 112
97	Prepare Purchase Request	3d	96	98SS
98	Request Business Clearance	1d	97SS	101
99	Refine MPLCC Estimate	5d	90	107
100	Prepare BAFO Instructions	1d	96	102
101	Receive Business Clearance	2d	98	102
102	Oral BAFO Discussions with Offerors	4d	100, 101	103FF
103	Request BAFO	1d	102FF	104FS+14ed
104	Receive BAFO Documentation	1d	103FS+14ed	107, 105, 106
105	Incorporate BAFO in Contracts	3d	104	109
106	Incorporate BAFO & Surveys in Items/Areas	2d	104	117
107	Incorporate BAFO in Cost Evaluation	2d	99, 104	111
108	<b>SSEB Exec Summary Report Complete</b>	27d		
109	PCO Review Contract & File for A & B	3d	105	110
110	JAG Review	3d	109	117
111	Finish MPLCC Estimates	2d	107	117
112	Complete PPRAG Evaluation	2d	96	113
113	Prep/Release Past Perform' Concerns Ltr	2d	112	114FS+5d
114	Receive PP Concerns Responses	1d	113FS+5d	115
115	Finish Past Perf Evaluations	5d	114	117
116	<b>SSA Decision</b>	3d		
117	Brief SSA	1d	106, 110, 111, 115	118
118	SSA Decision	1d	117	119, 121, 122
119	Notify AFMC/PK & SAF/AQC of Award	1d	118	123FS-3d
120	<b>Contract Award</b>	6d		
121	Congressional Notification	3d	118	122SS, 123
122	Prepare Contract for Award	5d	121SS, 118	123
123	Award Contract	1d	121, 122, 119FS-3d	124
124	Debrief Losers	5d	123	125
125	Prepare Source Selection Lessons Learned	30d	124	



# Appendix E

## Generic Sole Source Schedule

ID	Name	Duration	Predecessors	Successors
1	<b>Pre-Award Process (Start Through Award)</b>	338d		
2	<b>Develop RFP</b>	202d		
3	New Start Review/Form RFP Team	1d		4, 6, 7
4	RFP Team Training/Early Planning	5d	3	9, 5SS
5	Review Lessons Learned	5d	4SS	6SS, 7SS
6	Early Technical Requirements/Market Survey	15d	3, 5SS	10, 19, 15
7	Develop Overall PM Strategy	15d	3, 5SS	10, 18SS
8	<b>IASP Tactical Roundtable</b>	18d		
9	IASP Plan Prepared & Approved	5d	4	10
10	Conduct Tactical Roundtable(s)	3d	6, 7, 9	11
11	Issue Minutes	5d	10	27, 13SS, 14SS, 15SS, 16SS, 17SS
12	<b>Develop Acquisition Strategy</b>	76d		
13	Develop PM Strategy	5d	11SS	24, 31SS
14	Develop Contract Strategy	5d	11SS	24
15	Develop Technical Strategy	5d	6, 11SS	18SS
16	Develop Financial Strategy	5d	11SS	24
17	Develop Logistics Strategy	5d	11SS	24
18	Define Technical Requirements	30d	7SS, 15SS	24
19	Security Assessment	5d	6	20
20	Prep & Run Sources Sought Synopsis	5d	19	21
21	Receive Synopsis Responses	20d	20	22
22	Develop Bidders List	1d	21	23, 24
23	RFI/Market Research	30d	22	24
24	Discussions with Industry	10d	13, 14, 16, 17, 22, 23, 18	25, 37, 38, 39, 44, 45, 46
25	Refine Acquisition Strategy	5d	24	27
26	<b>Conduct IASP Review</b>	20d		
27	Prepare Acq Strategy Panel Brief	7d	11, 25	28
28	Acq Strategy Panel	3d	27	29
29	Process ASP Minutes	10d	28	34
30	<b>Prepare Single Acquisition Management Plan</b>	133d		
31	Prepare SAMP	30d	13SS	32SS, 34
32	Waiver Request Package	10d	31SS	33
33	Waiver Approval	45d	32	35
34	SAMP Review and Coordination	20d	29, 31	35
35	SAMP Approval	20d	34, 33	67
36	<b>Prepare Draft RFP</b>	63d		
37	Develop Draft SRD	20d	24	42FF, 43FF, 49, 47, 48
38	Develop CLINs	5d	24	49, 48
39	Develop Draft SOO	5d	24	41FF, 42FF, 43FF, 49, 47, 48, 40
40	Develop CDRL plus Data Call	30d	39	41
41	Conduct DRRB	1d	40, 39FF	49, 48
42	Develop Proposal Instructions	10d	37FF, 39FF	49, 48
43	Develop Evaluation Factors	10d	37FF, 39FF	49, 48
44	Develop Model Contract Attachments	20d	24	49, 48

## Appendix E

## Generic Sole Source Schedule

ID	Name	Duration	Predecessors	Successors
45	Develop Model Contract Special Provisions	10d 24		49, 48
46	Develop Model Contract Clauses	10d 24		49, 48
47	Establish RFP Library	5d 37, 39		67
48	Establish RFP Bulletin Board	5d 37, 38, 39, 41, 42, 43, 44, 45, 46		67
49	Initial RFP Industry Discussions	5d 37, 38, 39, 41, 42, 43, 44, 45, 46		50SS
50	Assemble Draft RFP	10d 49SS		51
51	Finalize Draft RFP	15d 50		53, 52SS
52	Notify AFMC/PK & SAF/AQC & USD(A&T) of Release	5d 51SS		53
53	Issue Draft RFP	2d 51, 52		55
<b>54</b>	<b>Finalize RFP</b>	<b>52d</b>		
55	DRFP Review/Solicitation Review Board	30d 53		56
56	DRFP Discussions	5d 55		58, 59
57	Notice of Contract Action	5d 63FF-15d		62
58	Prepare RFP Executive Summary Letter	1d 56		63
59	Revise DRFP into Final	10d 56		60, 63
60	ASC JAG Review of RFP	5d 59		61SS
61	ASC/PKC Review	5d 60SS		62
62	Approval of RFP Release	1d 57, 61		64
63	Finalize and Prepare RFP for Release	2d 58, 59		64, 57FF-15d
64	Issue RFP	1d 63, 62		67FS+45ed
<b>65</b>	<b>Contract Award</b>	<b>103d</b>		
<b>66</b>	<b>Air Force Evaluation</b>	<b>54d</b>		
67	Proposal Received	1d 64FS+45ed, 47, 48, 35		68, 70, 73, 69, 74
68	Evaluate Proposal	45ed 67		71
69	DCAA Audit Performed	45ed 67		71, 74
70	DPRO Price Analysis	15ed 67		71, 74
71	Conduct Fact Finding	5ed 69, 70, 68		72
72	Prepare Technical Evaluation	10d 71		74
73	Prepare Purchase Request	3d 67		74
74	Prepare Price Objective	7d 67, 69, 70, 73, 72		76, 77
<b>75</b>	<b>Business Clearance</b>	<b>16d</b>		
76	Prepare Preliminary Price Negotiation Memorandum	5d 74		78
77	Prepare Request for Business Clearance	1d 74		78
78	Business Clearance Review/Coordination	10d 76, 77		79
79	Business Clearance Session	1d 78		80
80	Negotiations	10d 79		82, 84, 83
<b>81</b>	<b>Contract Clearance</b>	<b>22d</b>		
82	Update Model Contract	3d 80		85
83	Notify AFMC & SAF/AQC of Award	1d 80		89
84	Prepare Final Price Negotiation Memorandum	5d 80		85
85	JAG Review	5d 82, 84		86
86	Prepare Request For Contract Clearance	1d 85		87
87	AFMC/PK Review	5d 86		88
88	Resolution Of Issues	5d 87		89

# Appendix E

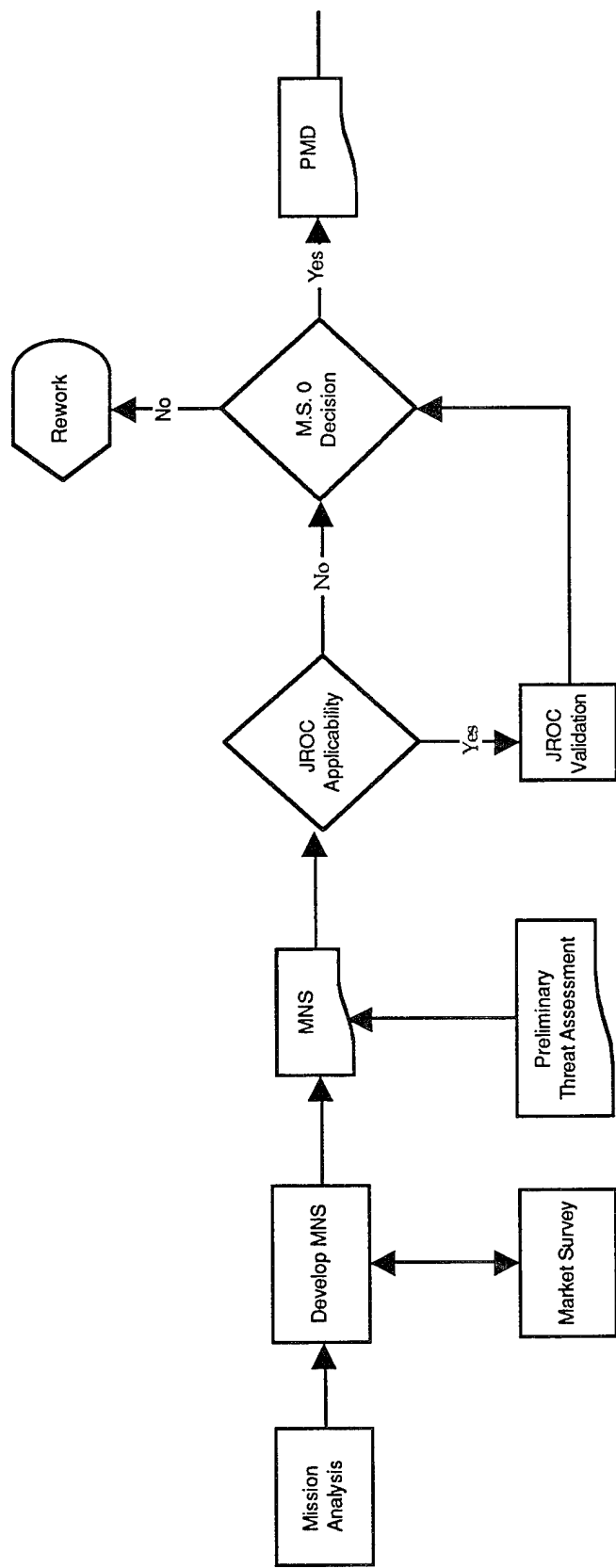
## Generic Sole Source Schedule

ID	Name	Duration	Predecessors	Successors
89	Contract Clearance (AFMC/PK)	1d 88, 83		90
90	Contract Award	1d 89		

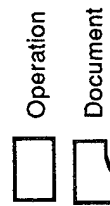




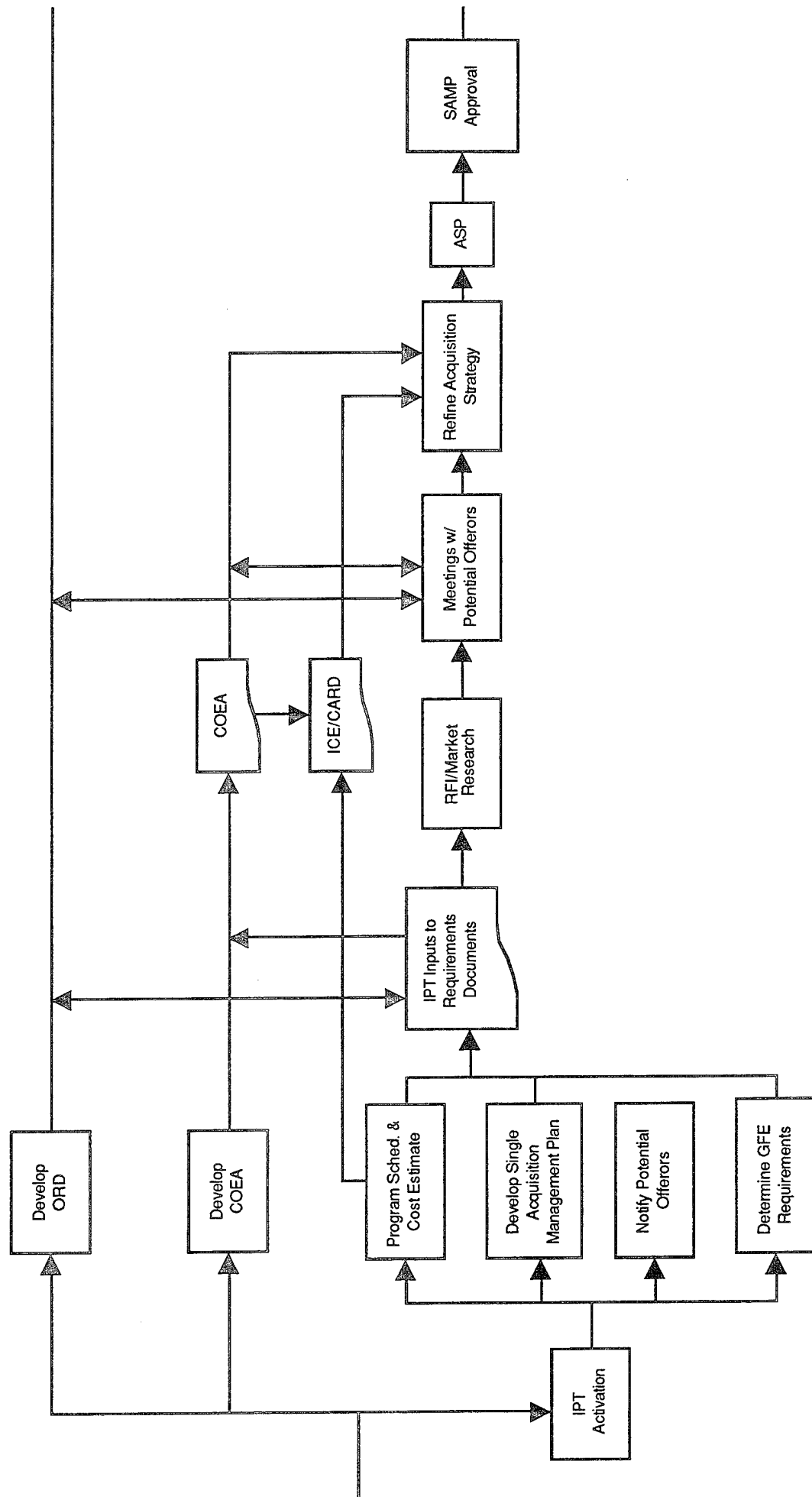
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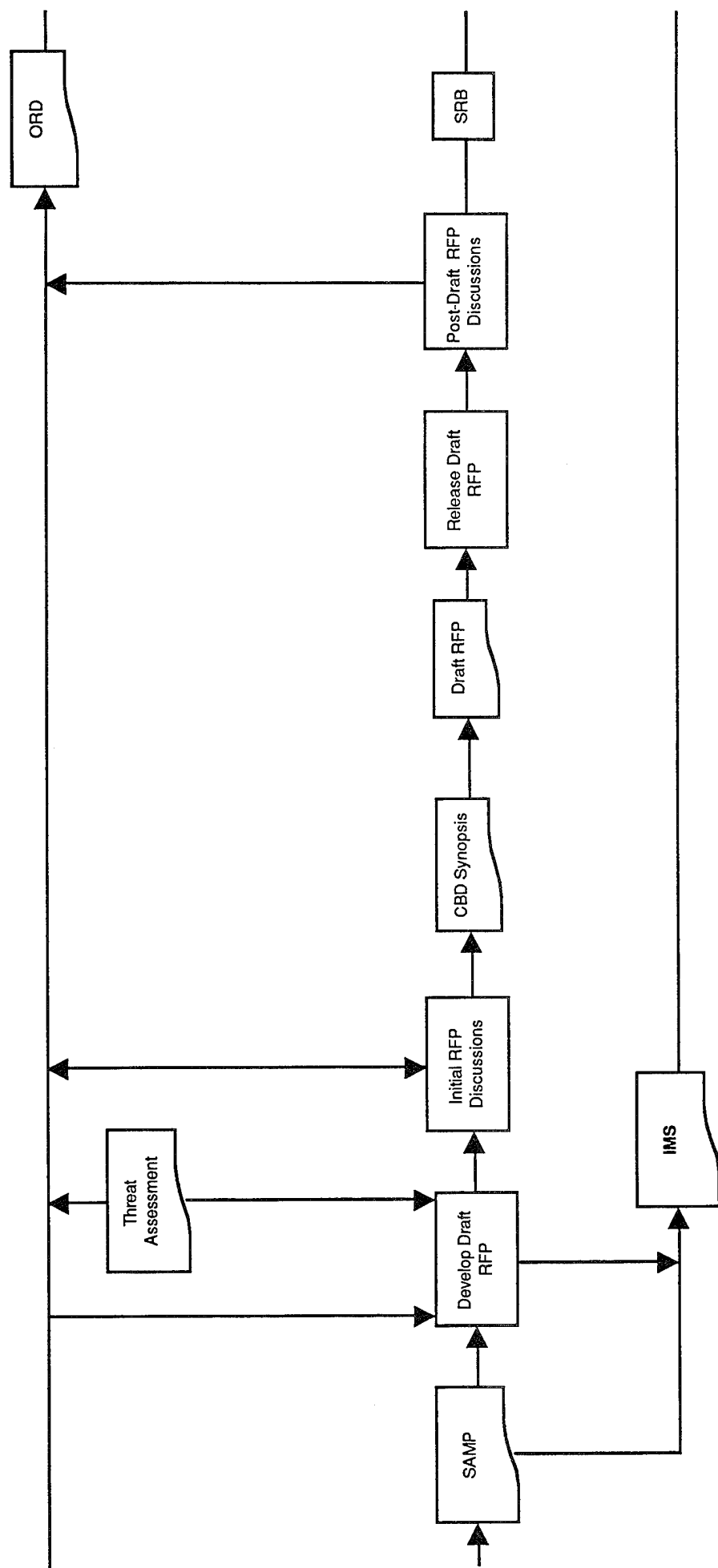
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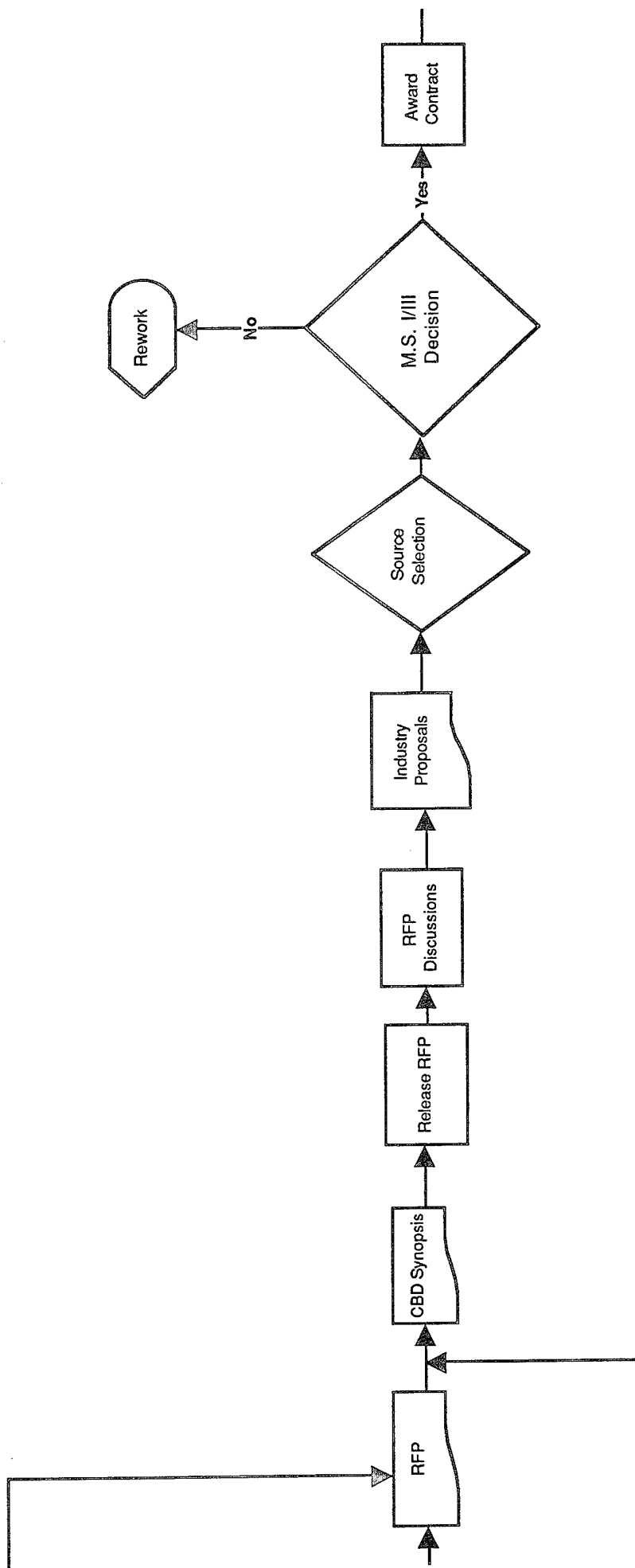
# Appendix F



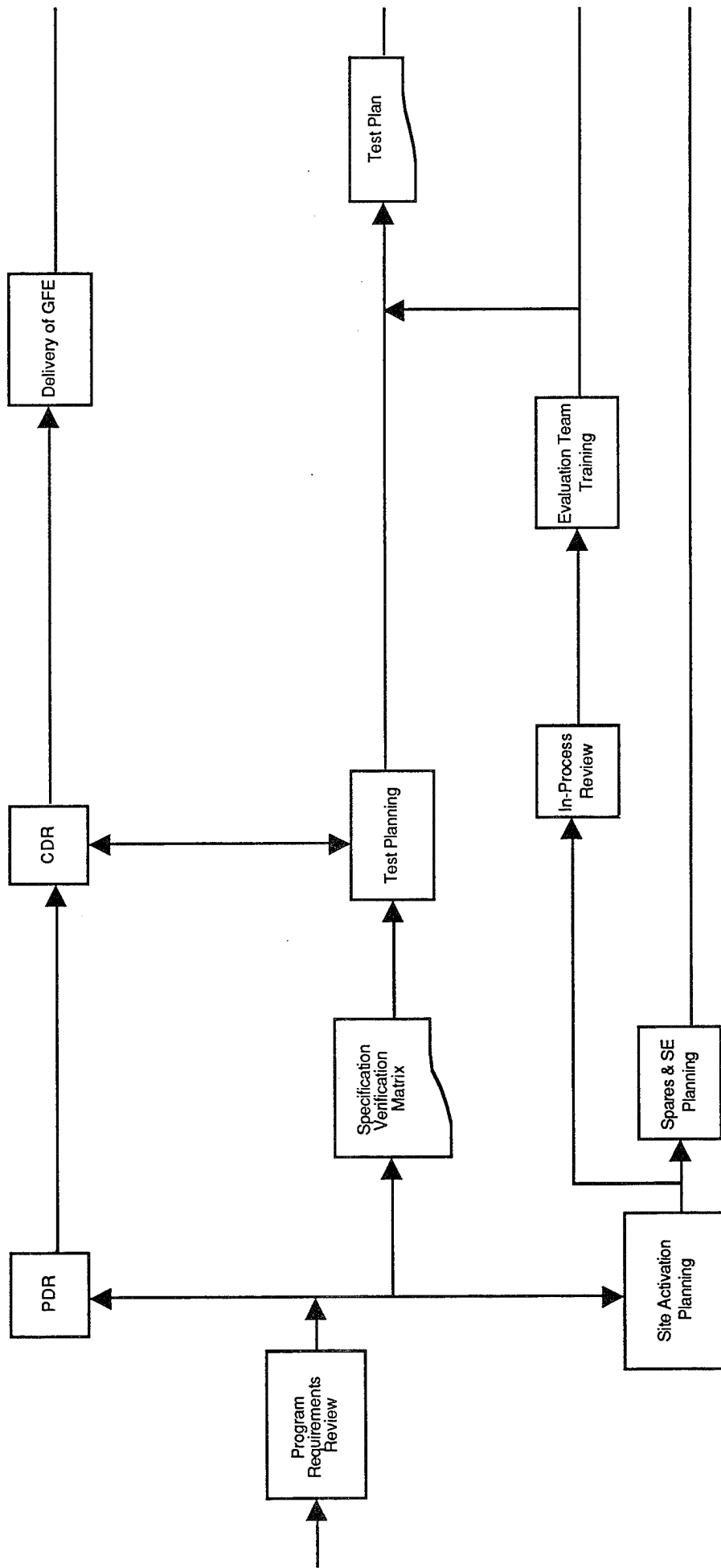
## Appendix F



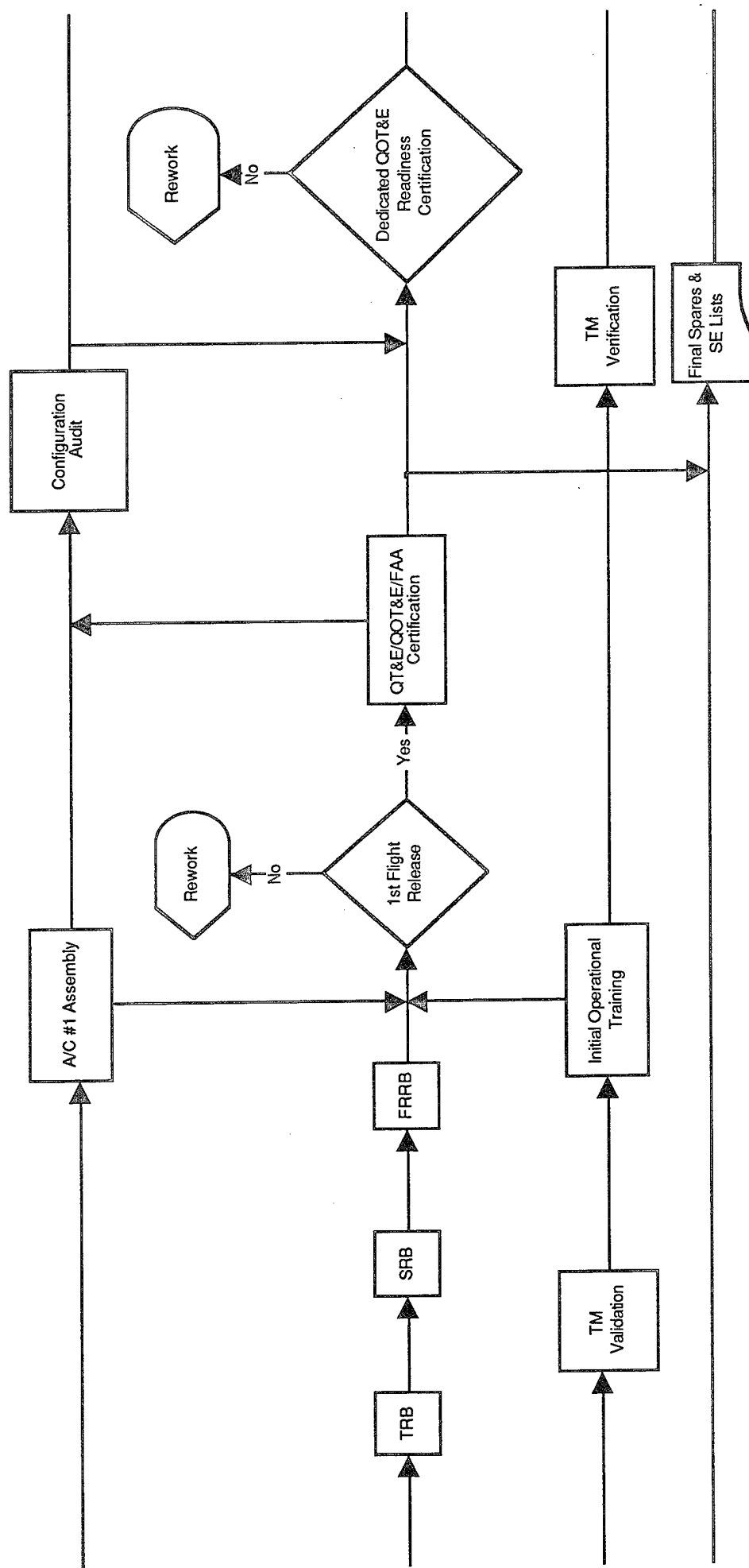
Appendix F



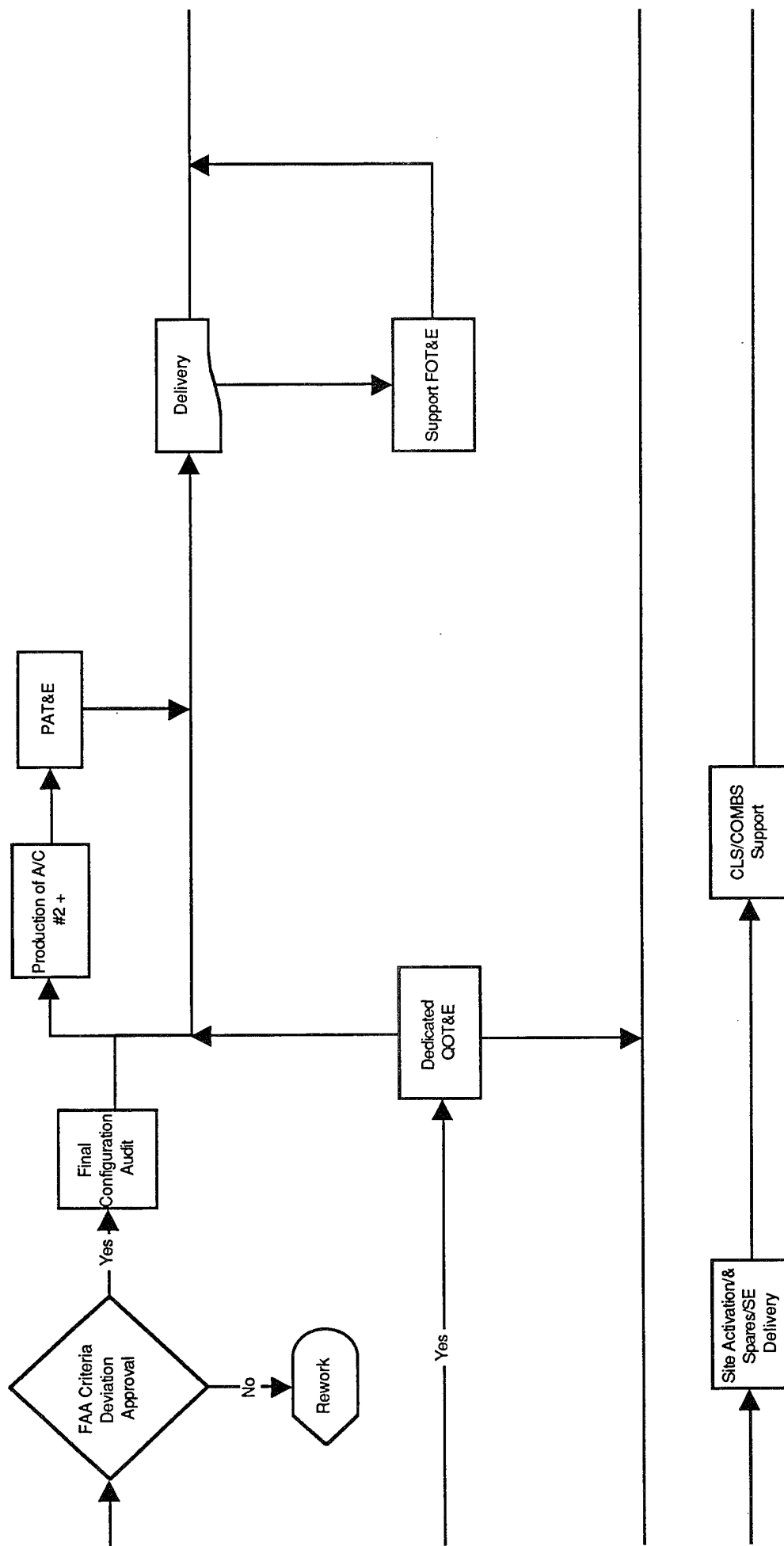
# Post-Award Process



## Appendix G



# Appendix G



Appendix G

